FINAL

PROGRAMMATIC ENVIRONMENTAL ASSESSMENT

OF THE PROPOSED SITE SELECTION, CONSTRUCTION, AND OPERATION OF A

REPLACEMENT LOUISVILLE VA MEDICAL CENTER

LOUISVILLE, JEFFERSON COUNTY, KENTUCKY

DEPARTMENT OF VETERANS AFFAIRS

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PROGRAMMATIC ENVIRONMENTAL ASSESSMENT

LEAD AGENCY:	Department of Veterans Affairs (VA)
COOPERATING AGENCIES:	None
TITLE OF PROPOSED ACTION:	Proposed Site Selection, Construction, and Operation of a Replacement Louisville VA Medical Center
AFFECTED JURISDICTION:	City of Louisville, Jefferson County, Kentucky
POINT OF CONTACT:	Mr. Jeff Leikin, VA Project Manager, 425 I Street NW, Washington DC 20001; Comm. Tel.: (202) 632-5274
PROPONENTS:	Department of Veterans Affairs (VA)

DOCUMENT DESIGNATION: Final Programmatic Environmental Assessment (Final PEA)

ABSTRACT: This Programmatic Environmental Assessment (PEA) evaluates the potential environmental effects of the Department of Veterans Affairs' (VA's) Proposed Action to select and acquire a site for the construction and operation of a minimum of 800,000 gross square feet, replacement VA Medical Center (VAMC) within an approximate 15-mile radius of the existing University of Louisville Healthcare Center, in Louisville, Jefferson County, Kentucky. Once a site (i.e., alternative) is selected, VA would prepare a subsequent, tiered, Site-specific EA (SEA) to more precisely analyze and evaluate the potential effects of the construction and operation of the proposed VAMC. At this latter point, additional design information would be available upon which to conduct this future effects analysis. This PEA includes a brief analysis of the effects of the transfer of operations from the existing VAMC to the proposed replacement VAMC. VA plans for the existing VAMC have not been determined at this time and would be the subject of a future feasibility study and analysis.

This PEA discusses three alternatives: (1) *Preferred Action Alternative – s*elect and acquire the approximately 36-acre Brownsboro Site, located southeast of the intersection of the Watterson Expressway (I-264) and Brownsboro Road in Louisville, Kentucky, for the future construction and operation of the proposed VAMC; (2) *Alternate Action Alternative – s*elect and acquire the approximately 99-acre St. Joseph Site, located east of the Gene Snyder Freeway (I-265) and south of Factory Lane in Louisville, Kentucky, for the future construction and operation of the proposed VAMC; and (3) the *No Action Alternative* - continue with operations as currently conducted. This PEA evaluates possible effects to aesthetics; air quality; cultural resources; geology and soils; hydrology and water quality; wildlife and habitat, including threatened and endangered species; noise; land use; floodplains, wetlands, and coastal zone management; socioeconomics; community services; solid and hazardous materials; transportation and parking; utilities; and Environmental Justice (Executive Order [EO] 12898). The PEA concludes there would be no significant impact, either individually or cumulatively, to the local environment or quality of life associated with implementing either Action Alternative, provided that the mitigation measures and best management practices (BMPs) identified in this PEA are implemented. Site-specific impacts would be further evaluated in a subsequent, tiered EA (SEA) once a site has been selected, acquired, and the proposed VAMC design process has been initiated. The proposed mitigation measures and BMPs identified in this PEA would be incorporated into that future process and analysis. Therefore, this PEA concludes that a mitigated Finding of No Significant Impact (FONSI) is appropriate, and that an Environmental Impact Statement (EIS) is not required.

EXECUTIVE SUMMARY

This Programmatic Environmental Assessment (PEA) has been prepared to identify, analyze, and document the potential physical, environmental, cultural, and socioeconomic effects associated with the Department of Veterans Affairs' (VA's) selection and acquisition of a site for the construction and operation of a replacement VA Medical Center (VAMC) within an approximate 15-mile radius of the existing University of Louisville Healthcare Center, in Louisville, Jefferson County, Kentucky. Preparation of this PEA is required in accordance with the National Environmental Policy Act of 1969 ([NEPA]; 42 United States Code [USC] 4321 *et seq*.), the President's Council on Environmental Quality (CEQ) Regulations Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and 38 CFR Part 26 (*Environmental Effects of the Department of Veterans Affairs Actions*).

Once a site is selected and acquired through this programmatic NEPA process, VA would prepare a subsequent, site-specific, "tiered" EA (Site-specific EA or SEA) to more precisely analyze and evaluate the potential effects of the construction and operation of the proposed VAMC. At this latter point in time, additional design information would be available upon which to conduct this future environmental effects analysis. VA would incorporate the mitigation, avoidance, and management measures identified in this PEA into that future design process and tiered NEPA analysis to minimize potential environmental effects.

This approach is fully consistent with the NEPA and CEQ Regulations. In cases such as these, the CEQ Regulations establish and recommend a "tiered" approach to the environmental impact analysis process: "Agencies are encouraged to tier their environmental (documents)…to focus on the actual issues ripe for decision at each level of environmental review…. Tiering may also be appropriate for different stages of actions" (40 CFR Part 1502.20). These regulations specify that such potentialities (i.e., the ultimate construction and operation of the replacement VAMC) should be introduced, but can be deferred to future analyses and documentation when they have "ripened," or when more complete information becomes available.

As such, this PEA assesses the potential effects of selecting and acquiring a site for the ultimate development of the proposed VAMC, and broadly assesses the effects of the future proposed construction and operation of the VAMC under each alternative considered. Again, site-specific effects would be more thoroughly analyzed and evaluated in a subsequent SEA, once this programmatic NEPA process is complete and a site has been selected and acquired by VA.

PROPOSED ACTION

VA's Proposed Action is to select and acquire a site for the construction and operation of a minimum of 800,000 gross square feet, replacement VAMC, including required parking (approximately 2,400 parking spaces), access, and other required site amenities and improvements, within an approximate 15-mile radius of the existing University of Louisville Healthcare Center, in Louisville, Jefferson County, Kentucky. VA established the size of the facility and land area required for this Proposed Action based on the number of US Veterans within the Louisville VAMC "catchment area" currently requiring healthcare services, and those Veterans forecast to require such services in the Louisville area over the life of the proposed facility. The Louisville VAMC provides services to a population of 166,000 Veterans in the 35-county region including western Kentucky and southern Indiana. Under the considered alternatives for the Proposed Action, VA would acquire land at one of two Action Alternative Sites for the construction and operation of a new VAMC to replace the

existing VAMC. VA currently has funding for land acquisition and design for the replacement VAMC, but does not have funding for the replacement VAMC construction. VA's plans for the existing VAMC have not been determined and would be the subject of a feasibility study and analysis. Existing VAMC operations would continue until the new VAMC is operational in approximately 2018 and then would be transferred to the new facility. At the time operations are transferred to the new VAMC, the existing VAMC would continue to be used by VA for other purposes, would be used by other undefined entities for undefined purposes, or would be decommissioned; however, the level of decommissioning of the existing VAMC is unknown at this time.

Currently, there are no design plans for the proposed replacement VAMC. Following site selection, VA would initiate the design process. At that time, VA would complete a tiered, SEA, in accordance with the above regulations.

PURPOSE AND NEED

The *purpose* of the Proposed Action is to provide a replacement, full-service hospital (inpatient and outpatient) of sufficient capacity to service the current and projected future healthcare needs of US Veterans requiring services from the Louisville VAMC catchment area, primarily in western Kentucky and southern Indiana. VA has sized this required site and facility to accommodate an anticipated 65,000 or more patients per year.

The Proposed Action is *needed* to replace the existing Louisville VA medical facilities that have reached the end of their serviceable lives. The conditions at the existing facilities, as well as the configuration of the existing facilities, are inadequate to effectively and efficiently meet the needs of VA's healthcare mission in the region. Currently, VA provides inpatient and outpatient medical services to Veterans at the existing VAMC in Louisville and four outpatient clinics in the Louisville area. Under current conditions, VA does not have sufficient capacity to provide adequate regional healthcare services to meet the current and future needs of US Veterans. The current hospital and clinics are operating at maximum capacity with limited opportunity for expansion to meet these needs and the Veterans population is estimated to increase more than 65,000 in the next 10 years. In addition, parking at the existing VAMC is insufficient. The insufficient facilities challenge VA's ability to safely, economically, and consistently provide high-quality, integrated healthcare services to the region's Veterans.

ALTERNATIVES

VA began developing alternatives for the Proposed Action ranging from reconfiguring the existing (Zorn Avenue) Louisville VAMC site through new construction and/or renovation, to constructing a replacement VAMC at the existing VAMC site or at some new site in the Louisville area (Downtown Site or an undefined greenfield site). In 2009, VA commissioned a feasibility study. That feasibility study concluded that each alternative was feasible, but identified that each alternative presented various challenges or advantages. The feasibility study did not attempt to identify any particular new site, but rather evaluated a generic new site's feasibility compared to reconfiguring the current Zorn Avenue facility.

VA then published a request for expressions of interest from potential offerors for an acceptable site for the potential development of a new VAMC in April 2010 (VA 2011). The request required that the site must be located within an approximate 15-mile radius of the existing University of Louisville Healthcare Center, in Louisville, Jefferson County, Kentucky. VA's intentions were that the site should be able to accommodate a minimum of 800,000 gross square feet facility and approximately 2,400 parking spaces. Overall, VA required at least 25 acres of developable land to accommodate the required facility.

VA received numerous responses to the request, a number of which met the initial screening criteria. Through a comprehensive screening process, including a visit to each site, VA further narrowed the number of reasonable sites based on a more refined analysis of site-specific aspects, issues, and concerns. These included an analysis of: surrounding land uses; proximity to local hospitals; current zoning; accessibility to transportation, shopping, restaurants, and other features; utility availability; overall site condition; and visible environmental issues/constraints/features. As a result of this more refined screening, VA identified three potential greenfield (mostly undeveloped) sites that appeared to best meet all of the VA's criteria. These sites are referred to in this PEA as the Brownsboro, Fegenbush, and St. Joseph Sites. In addition to the three greenfield sites, VA also identified the Downtown Site and the potential to reconfigure the existing Louisville VAMC site as candidate sites for the replacement VAMC.

In 2011, VA completed an initial environmental screening of these five alternative sites as part of the NEPA process. Through this screening process, potential environmental issues/significant adverse effects were identified for several of the five initially considered sites. Please see Section 2.3.2 of this PEA for more information concerning this screening process.

Through this screening process, VA determined that only the Brownsboro Site and the St. Joseph Site were reasonable alternatives. In this PEA, the Brownsboro Site is identified as the Preferred Action Alternative and the St. Joseph Site is identified as the Alternate Action Alternative. The remaining three sites initially considered by VA (i.e., the Fegenbush, Downtown, and Zorn Sites) were eliminated from future consideration by VA.

The two Action Alternatives analyzed in depth within this PEA are:

- **Preferred Action Alternative (Brownsboro Site)**: Acquire the Brownsboro Site, located southeast of the intersection of Brownsboro Road and I-264, for the construction and operation of a new VAMC. This site includes approximately 36 acres of unimproved, former agricultural land.

- **Alternate Action Alternative (St. Joseph Site):** Acquire the St. Joseph Site, located east of I-265 and south of Factory Lane, for the construction and operation of a new VAMC. This site includes approximately 99 acres of mostly unimproved, agricultural land.

As required under CEQ Regulations at 40 CFR Part 1502.14, this PEA also considers the No Action Alternative. While the No Action Alternative would not satisfy the purpose of or need for the Proposed Action, this alternative was retained to provide a comparative baseline against which to analyze the effects of the Proposed Action. The No Action Alternative reflects the *status quo*, serves as a benchmark against which the effects of the Proposed Action can be evaluated, and is defined as follows.

- **No Action Alternative**: Do not implement the Proposed Action as identified and continue with operations as currently conducted at the existing Louisville VAMC at the Zorn Avenue location.

Both Action Alternative sites (Brownsboro Site and St. Joseph Site) effectively provide the necessary combination of land, location, and proximity to related facilities in the Louisville area for implementing the Proposed Action. The Action Alternatives would provide a site that would ultimately allow VA to construct and operate a VAMC to overcome the deficiencies associated with the current facility. Each of the Action Alternatives meets VA's requirements of providing a suitable site within an approximate 15-mile radius of the existing University of Louisville Healthcare Center, in Louisville, Jefferson County, Kentucky. The No Action Alternative would not enable VA to carry out its assigned mission to provide adequate healthcare services to US Veterans in western Kentucky and southern Indiana.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The Affected Environment of the two Action Alternative sites and their immediate surroundings, or the Region of Influence (ROI) of the Proposed Action, is discussed in Section 3 of this PEA.

The three considered alternatives, including the No Action Alternative, are evaluated in this PEA to determine their potential direct, indirect, and cumulative effect(s) on the physical, environmental, cultural, and socioeconomic aspects of the Proposed Action's ROI. Technical areas evaluated in this PEA include:

- *Aesthetics*
- *Air Quality*
- *Cultural Resources*
- *Geology, Topography, and Soils*
- *Hydrology and Water Quality*
- *Wildlife and Habitat*
- *Noise*
- *Land Use*
- *Floodplains, Wetlands, and Coastal Zone Management*
- *Socioeconomics*
- *Community Services*
- *Solid and Hazardous Materials*
- *Transportation and Parking*
- *Utilities*
- *Environmental Justice*
- *Cumulative Impacts*
- *Potential for Generating Substantial Controversy*

Preferred Action Alternative

The Preferred Action Alternative (Brownsboro Site) would result in the impacts area identified throughout Section 3 of this PEA. These primarily include potential impacts to aesthetics, air quality, cultural resources, soils, hydrology and water quality, wildlife and habitat, noise, land use, solid and hazardous materials, transportation and parking, and utilities. With the exception of transportation, all of these potential impacts would be less-than-significant and would be further reduced through careful coordination and implementation of the general best management practices (BMPs) and management measures, and compliance with regulatory requirements as identified throughout Section 3.

The Preferred Action Alternative could result in significant impacts to transportation (traffic). This is due to the anticipated traffic congestion at the intersection of Brownsboro Road (US 42) and Northfield Drive/Old Brownsboro Road. This intersection currently operates at an unacceptable level of service, meaning that current traffic delays are unacceptable to the motoring public. Additional traffic associated with the proposed VAMC would further increase these delays and could have a significant adverse effect on traffic at this intersection. To mitigate the traffic impact of the proposed VAMC, VA would consult and work with pertinent Federal, State, and local regulatory agencies to achieve roadway improvements at this intersection. Some of these improvements are already planned by the Kentucky Transportation Cabinet (KTC). Possible improvements are described in Section 3.14. VA would specifically analyze and address this issue within the SEA, in consultation with appropriate agencies, when additional design and potential project-generated traffic data are available. That SEA would provide a detailed description of the roadway improvement mitigation required to reduce potential unacceptable traffic impacts within the ROI of the Proposed VAMC.

Alternate Action Alternative

The Alternate Action Alternative (St. Joseph Site) would result in the impacts identified throughout Section 3. These primarily include potential impacts to aesthetics, air quality, cultural resources, soils, hydrology and water quality, wildlife and habitat, noise, land use, wetlands, solid and hazardous materials, transportation and parking, and utilities. With the exception of transportation , hydrology and water quality (Waters of the US), wildlife and habitat, and wetlands, all of these potential impacts would be less-than-significant and would be further reduced through careful coordination and implementation of the general BMPs, management measures, and compliance with regulatory requirements as identified throughout Section 3.

The Alternate Action Alternative could result in adverse impacts to wetlands and Waters of the US, and protected wildlife and habitat (see below). However, VA anticipates that through environmentally sensitive site design and following good engineering practices, as well as consultation with pertinent Federal, State, and local regulatory agencies, these potential impacts would be avoided or maintained at less-than-significant levels. Adverse effects to wetlands/Waters of the US and protected vegetation and wildlife would be avoided to the extent possible; unavoidable effects would be mitigated to less-than significant levels through consultation with the USFWS under Section 7 of the Endangered Species Act (ESA) and consultation and permitting with the USACE and KDEP under Sections 401 and 404 of the Clean Water Act. VA would specifically analyze and address these issues within the SEA, in consultation with appropriate agencies, when additional design data are available. That SEA would provide a detailed description of any required mitigation necessary to maintain effects at less-than-significant levels.

The two resources at the Alternate Action Alternative Site requiring avoidance during the site-specific design process include:

- ***Wetlands and Waters of the US.*** Jurisdictional wetlands and Waters of the US are present at the St. Joseph Site and encompass approximately 0.56 acres in the northern and central portion and along the southern boundary. VA would avoid onsite surface water resources to the extent possible during the site design process. VA would consult with, and obtain the necessary permit(s) from the U.S. Army Corps of Engineers (USACE) and the Kentucky Department of Environmental Protection (KDEP) under Sections 401 and 404 of the Clean Water Act to minimize adverse effects to jurisdictional surface water resources prior to construction. VA anticipates that final VAMC design would maintain a buffer of undisturbed land around the majority of identified surface water resources. However, in those cases where impacts to wetlands and Water of the US cannot be avoided (e.g., at stream crossings), VA would obtain and comply with all necessary permits from Federal, State, and local agencies.

- ***Wildlife and Habitat.*** The St. Joseph Site is located within the range of the endangered (Federal-listed) Indiana Bat. Potential Indiana Bat habitat is present at the Site. VA would avoid onsite potential Indiana Bat habitat to the extent possible during the site design process. Prior to construction, VA would consult with the U.S. Fish and Wildlife Service (USFWS) to minimize adverse effects to the Indiana Bat. VA anticipates that final VAMC design would maintain a buffer of undisturbed land around the majority of identified onsite potential Indiana Bat habitat. Through the consultation and permitting process, adverse effects to the Indiana Bat would be maintained at acceptable levels.

  The St. Joseph Site is also located within the range of the endangered (Federal- and State-listed) Running Buffalo Clover. Running Buffalo Clover was not identified at the St. Joseph Site during survey activities in May 2012; however, Running Buffalo Clover was identified off-site along the eastern boundary of the southern portion of the St. Joseph Site. VA anticipates that the VAMC would be designed to avoid impact to the Running Buffalo Clover

identified on the adjacent property. Prior to construction, VA would consult with the USFWS to minimize impacts to the off-site Running Buffalo Clover.

The Alternate Action Alternative could also result in significant impacts to transportation (traffic). This is due to the anticipated traffic congestion at the intersections of Old Henry Road with Bush Farm Road/Factory Lane, and LaGrange Road and Factory Lane/Chamberlain Lane. Additional traffic associated with the proposed VAMC could have a significant adverse effect on traffic at these intersections. To mitigate the traffic impact of the Proposed VAMC, VA would consult and work with pertinent Federal, State, and local regulatory agencies to design and install roadway improvements at these intersections. VA would specifically analyze and address this issue within the SEA, in consultation with appropriate agencies, when additional design and potential project-generated traffic data are available. That SEA would provide a detailed description of the roadway improvement mitigation required to reduce potential unacceptable traffic impacts within the ROI of the Proposed VAMC.

Under either of the Action Alternatives, positive, short-term and long-term effects to the local socioeconomic environment would be anticipated. Notably, a significant long-term positive effect to the health of US Veterans would occur should a site be developed for a new, improved VAMC. In addition, the Proposed Action would have a significant, positive impact to traffic and parking in the area of the existing VAMC. No direct or indirect health or safety risks to children are anticipated.

Under the No Action Alternative, the Proposed Action would not be implemented and no improvements to the current level of VA's regional healthcare services or capability would ultimately occur. No positive effects attributable to the Proposed Action would occur and the VA's ability to provide sufficient, requisite health care services to the region's Veterans would be compromised.

The PEA also examines the potential cumulative effects of implementing each of the considered alternatives. This analysis finds that either of the Action Alternatives, with implementation of the mitigation, avoidance, and management measures proposed in this PEA, would not result in significant cumulative impacts to onsite or regional natural or cultural resources, and would maintain or enhance the socioeconomic environment of the area through long-term provision of required healthcare services to the region's Veterans. The No Action Alternative would not produce these potential positive socioeconomic gains. No significant cumulative effects are identified.

AGENCY INVOLVEMENT

Agencies consulted for this PEA include: the US Fish and Wildlife Service (USFWS) - Southeast Region, US Environmental Protection Agency (USEPA) Region 4, US Army Corps of Engineers (USACE) – Louisville District, Kentucky Department of Natural Resources (KDNR), Kentucky Department of Environmental Protection (KDEP), Kentucky Department of Fish and Wildlife Resources (KDFWR), Kentucky Transportation Cabinet (KTC), Kentucky Heritage Council (State Historic Preservation Office or SHPO), Jefferson County – Louisville Metro Air Pollution Control District (MAP), Jefferson County – Louisville Economic Development Department (EDD), Jefferson County – Louisville Inspections, Permits, and Licensing Department (IPL), Jefferson County Soil and Water Conservation District (SWCD), Jefferson County – Louisville Planning and Design Services (PDS), Jefferson County – Louisville Metro Public Works and Assets (PWA), Natural Resources Conservation Service – Mount Washington Service Center (NRCS), and Jefferson County – Louisville Metro Parks Department (MPD). Agency information and comments have been incorporated into this PEA, as and where appropriate (see Appendix A). The following summarizes information provided by the agencies consulted:

Both Action Alternatives

The **KDFWR** generally stated that, for both Action Alternative sites, impacts to aquatic resources should be minimized through the implementation of strict erosion control measures prior to any future construction to minimize siltation into streams and stormwater drainage systems located within the project area. Such erosion control measures may include, but are not limited to, silt fences, staked straw bales, brush barriers, sediment basins, and diversion ditches. Erosion control measures would need to be installed prior to any future construction and should be inspected and repaired regularly as needed.

The **KDEP Division of Air Quality (DAQ)** stated that any future VA development of any site would be required to comply with DAQ regulations 401 KAR 63:010 (Fugitive Emissions), 401 KAR 63:005 (Prohibition of Open Burning), and 401 KAR 58:025 (Asbestos Standards). The DAQ also recommended that local government regulations should be considered. No other comments were provided by the DAQ.

The **KDEP Nature Preserves Commission** indicated that they did not have any concerns pertaining to the Proposed Action or the considered sites.

The **KDEP Division of Water (DOW)** stated that BMPs should be used to reduce runoff from any future VA development of any site into adjacent surface waters and stated that any development within floodplains would require a Stream Construction Permit issued by the DOW. In addition, the DOW stated that a Groundwater Protection Plan (GPP) would be required if any activities detailed in the GPP regulation are conducted. Any existing wells to be abandoned and any new wells installed would need to be completed by a Kentucky-certified well driller.

The **KDEP Division of Waste Management (DWM)** stated that they do not have any comments regarding the Action Alternative sites and would provide comments after the site selection has been completed.

The **Louisville Metro Public Works and Assets (PWA)** stated that there are several endangered species of plants, such as Running Buffalo Clover, that have been documented in Jefferson County. Additionally, Indiana Bats also have been found in many wooded areas in Jefferson County.

The **Louisville Water Company (LWC)** stated that if an Action Alternative would require subdivision, the LWC New Development and Extensions Department (NDE) would need to be consulted; however, VA does not intend to subdivide the selected site. Specific system improvement requirements would be determined when detailed plans and information are provided to the LWC. New services require that all fees for water taps, fire service taps, and water meters be submitted before the installation process can begin. The LWC stated that their Service Rules and Regulations require that a property must abut a public right-of-way (ROW), public water easement, or other public utility easement in which a LWC water distribution main is located. Both Action Alternatives abut a public ROW, public water easement, and/or other public utility easement.

Listed below are the site-specific issues identified by the agencies contacted during this NEPA process. All of these issues are addressed in Section 3 of the PEA.

Brownsboro Site

The **USFWS** indicated that the Brownsboro Site is situated within the home range of a known Indiana Bat maternity colony (i.e., suitable habitat used by juveniles and reproductive females). However, the USFWS identified that the Brownsboro Site is previously cleared, adjacent to a highway, and surrounded by development. Based on these factors, the USFWS stated that the Brownsboro Site does not contain suitable roost trees for Indiana Bats and future development at the Brownsboro Site would not likely adversely affect the Indiana Bat.

A response from the **SHPO** dated April 25, 2011 indicated that the Brownsboro Site has the potential to contain prehistoric and/or historic resources that could be impacted by the Proposed Action (during the future construction of a VAMC), and the Proposed Action has the potential to cause indirect effects to historic properties near the site. The SHPO recommended that a records review be completed for the site to assess the potential for archeological resources and structures that are over 50 years of age at and in the vicinity of the Brownsboro Site.

In response to SHPO comments, VA retained R. Christopher Goodwin and Associates, Inc. (RC Goodwin) to conduct a records review of the Brownsboro Site. RC Goodwin indicated that no National Register of Historic Places (NRHP) historic districts or eligible structures are located on the Brownsboro Site. The site included a previously historic structure, but it is no longer present and its eligibility is undetermined. RC Goodwin also noted that the Zachary Taylor National Historic Landmark and National Cemetery, located approximately one-half mile west of the Site, and several individually listed NRHP properties (1,000 feet or more from the Site), are potentially located in the area of potential effect (APE) for the Brownsboro Site. RC Goodwin indicated that no archeological remains had been documented at the Brownsboro Site, but no surveys had been conducted at the Site; therefore, it was possible intact archeological sites may be present.

RC Goodwin proceeded with a Phase I Archeological Inventory (AI) which identified one archeological site in the northwest portion of the Brownsboro Site. However, RC Goodwin concluded that this archeological site does not possess the qualities of significance defined by the National Register Criteria for Evaluation and does not present research potential. As such, RC Goodwin concluded that the Brownsboro Site does not contain cultural resources listed, or eligible for listing, in the NRHP and recommended no further investigations. VA submitted the Draft AI for the Brownsboro Site to the Kentucky SHPO for review and concurrence under Section 106 of the NHPA. The SHPO reviewed the AI and indicated that it concurred with its findings and recommendations. However the SHPO noted that this occurrence only applies to archeological resources. The SHPO stated that additional analyses would be required to evaluate direct and indirect impacts to above ground cultural resources within the APE of the Brownsboro Site to fulfill VA's Section 106 requirements. The additional requested analysis would be conducted during the SEA.

The **PWA** expressed a concern regarding the potential future loss of pervious surfaces at the Brownsboro Site; however, the agency did not indicate that this would prevent the future development of a VAMC at the Brownsboro Site. The PWA also indicated that the Brownsboro Site includes prime and unique farmland soils.

The PWA also identified that future construction of a VAMC at this site would create traffic and associated air quality issues. According to the PWA, the US 42 and I-264 interchange is already congested. PWA stated that any further development in this area could require major improvement to the highway infrastructure. These improvements would likely involve improvements to the I-264 interchange. The PWA stated that, with the congestion at this location, further degradation to traffic and air quality would be problematic. The reconfiguration of the US 42 and I-264 interchange, as recommended by the PWA, is already planned by the Kentucky Transportation Cabinet (KTC) and is scheduled to be completed by 2020 or earlier (see below).

The **KTC** indicated that it has planned improvements to the I-264 and Brownsboro Road interchange that include the construction of a slip ramp for exiting I-264 that is expected to be completed by the end of 2012 and a completely new interchange configuration (Single Point Urban Interchange) that is planned to be designed beginning in 2013. KTC indicated that the new interchange is expected to be completed by 2020, but may be expedited. KTC stated that the reconfigured interchange would likely fully alleviate traffic congestion at both the highway access point (I-264 and Brownsboro Road) and further down Old Brownsboro Road, and would likely be able to accommodate the proposed VAMC without significant, additional modifications to roadways.

BTM Engineering, Inc. (BTM) prepared a Traffic Impact Analysis (TIA) for the Brownsboro Site on behalf of VA in March 2012. In addition, Oculus, Inc. and Olsson Associates completed a Traffic Impact Study (TIS) on behalf of VA in May 2012. The TIA and TIS evaluated peak traffic conditions under three scenarios: current conditions, projected 2018 conditions without the proposed VAMC, and projected 2018 conditions with the proposed VAMC. The results of the TIA and TIS indicate that the proposed VAMC could have a significant impact on traffic in the Brownsboro Site area, particularly at the intersection of Brownsboro Road (US 42) and Northfield Drive/Old Brownsboro Road (KY 22). The TIA and TIS also indicated that improvements to this intersection and the I-264/US 42 interchange improvements already planned by KTC would mitigate potential significant traffic impacts associated with the proposed VAMC.

The **KDFWR** indicated that no listed threatened or endangered species were identified for the Brownsboro Site; however, this site falls within known Indiana Bat summer maternity habitat and is considered a sensitive area for this species. KDFWR indicated that further coordination with the USFWS Kentucky Field Office would be required prior to any future construction. However, the USFWS stated that the Brownsboro Site does not contain suitable roost trees for Indiana Bats and future development at the Brownsboro Site would not likely adversely affect the Indiana Bat (see above).

The **Louisville Metropolitan Sewer District (MSD)** indicated that, due to flooding on the west side of I-264 (downstream), stormwater retention would be required for any future development of the Brownsboro Site. The MSD stated that post-development stormwater flows must meet pre-existing flow rates or the capacity of the downstream system, whichever is more restrictive.

Louisville Gas and Electric (LGE) stated that a primary electrical feed would be provided to the Brownsboro Site from the Taylor Substation, located approximately one mile west of the Site. In addition, LGE stated that a backup electrical feed is possible for the Brownsboro Site.

St. Joseph Site

The **USFWS** indicated that the St. Joseph Site is located within potential Indiana Bat habitat range. To minimize effects to the Indiana Bat, the USFWS stated that VA should, in the future, design the new VAMC to avoid effects to the Indiana Bat; conduct formal ESA Section 7 consultation with the USFWS; and/or enter into a Memorandum of Agreement (MOA) with the USFWS to account for the incidental taking of Indiana Bats. However, the USFWS stated that seasonal tree clearing (October 15 through March 31) could occur without additional mitigation. TTL conducted an Indiana Bat habitat survey of the St. Joseph Site that confirmed that potential Indiana Bat habitat exists at this site, primarily in wooded areas in the northwest and northeastern portions of the site and along the eastern site boundary.

The **USFWS** stated that the St. Joseph Site includes potential habitat for the Running Buffalo Clover. The USFWS stated that proposed alteration of habitat at this site would require a pre-disturbance, on-site survey for the Running Buffalo Clover. TTL conducted a Running Buffalo Clover survey of the St. Joseph Site in May 2012 that did not identify any Running Buffalo Clover at the site. However, Running Buffalo Clover was identified off-site, adjacent to the eastern boundary of the southern portion of the St. Joseph Site.

A response from the **SHPO** dated April 25, 2011 indicated that the St. Joseph Site has the potential to contain prehistoric and/or historic resources that could be impacted by the Proposed Action (during the future construction of a VAMC), and the Proposed Action has the potential to cause indirect effects to historic properties near the site. The SHPO recommended that a records review be completed for the site to assess the potential for archeological resources and structures that are over 50 years of age at and in the vicinity of the St. Joseph Site.

In response to SHPO comments, VA retained RC Goodwin to conduct a records review of the St. Joseph Site. RC Goodwin indicated that no NRHP historic districts of eligible structure were identified within the St. Joseph Site boundaries. RC Goodwin noted that the Altawood Historic District and/or Ash Avenue Historic District, both listed on the NRHP and located approximately 1 to 1.5 miles north of the St. Joseph Site may be within the visual impact area of the Alternate Action Alternative. RC Goodwin indicated that no archeological remains had been documented at the St. Joseph Site, but no surveys had been conducted at the Site; therefore, it was possible intact archeological sites may be present.

RC Goodwin proceeded with a Phase I Archeological Inventory (AI) for the St. Joseph Site, which identified two cultural resources at the Site: one cultural resource locus (which does not qualify as an archeological site) and one archeological site. RC Goodwin concluded that cultural resources at the St. Joseph Site do not possess the qualities of significance defined by the National Register Criteria for Evaluation and do not present research potential. As such, RC Goodwin concluded that the St. Joseph Site does not contain cultural resources listed, or eligible for listing, in the NRHP and recommended no further investigations. VA submitted the Draft AI for the St. Joseph Site to the Kentucky SHPO for review and concurrence under Section 106 of the NHPA.

The **PWA** expressed a concern regarding the loss of pervious surfaces at the St. Joseph Site due to any proposed future development; however, the agency did not indicate that this would prevent the future development of a VAMC at the St. Joseph Site. The PWA indicated that the St. Joseph Site includes prime and unique farmland soils.

The PWA also indicated that the transportation infrastructure around the St. Joseph Site is inadequate to handle the traffic volumes for the proposed VAMC. PWA state that improvements to roads and intersections leading into the site could be required as part of any future development of this site. These improvements would likely include improvements to the I-265 Interchange at Old LaGrange Road, the intersection of Old LaGrange Road and Factory Lane, and construction of a connector road to Old Henry Road.

BTM prepared a TIA for the St. Joseph Site on behalf of VA. The TIA evaluated peak traffic conditions under three scenarios: current conditions, projected 2018 conditions without the proposed VAMC, and projected 2018 conditions with the proposed VAMC. The results of the TIA indicate that the proposed VAMC could have a significant impact on traffic in the Site area. The TIA also indicated that various intersection improvements, some already planned, would mitigate the traffic impacts associated with the proposed VAMC.

The **USACE** stated that "Waters of the US" may be located on the St. Joseph Site and that a jurisdictional determination is required. TTL completed a Wetlands Delineation of the St. Joseph Site that identified two small wetlands and a perennial stream (Floyd Fork Tributary) in the northern portion of the site that are potential jurisdictional wetlands/Waters of the US. An on-site perennial stream near the southern site boundary and an associated off-site wetland located adjacent to the site are also potential Waters of the US. A small isolated wetland was identified in the central portion of the site that was determined to be non-jurisdictional. If the St. Joseph Site is selected, VA would obtain a jurisdictional determination from the USACE regarding identified wetlands and Waters of the US.

The **KDFWR** indicated that no listed species occur in the vicinity of the St. Joseph Site, but any future effects to streams and wetlands should be addressed, if present.

The **LWC** stated a new water supply tank is being constructed near the southern boundary of the St. Joseph Site and would be ready for service in 2012. In addition, a private fire hydrant loop would likely be required for any future development of the St. Joseph Site.

The **MSD** indicated that stormwater retention would be required for any future development of the St. Joseph Site due to severe local flooding issues (but not on the St. Joseph Site). The MSD stated that post-development stormwater flows must meet pre-existing flow rates or the capacity of the downstream system, whichever is more restrictive.

LGE stated that an electrical service feed for any future proposed development would come from the Old Henry Substation; however, a back-up feed would have to come from a second transformer that has not yet been installed.

For proposed actions, Federal agencies are required to consult with federally recognized Native American Tribes in accordance with the NEPA, the National Historic Preservation Act (NHPA), the Native American Graves Protection and Repatriation Act (NAGPRA), and Executive Order (EO) 13175. As part of this NEPA process, VA identified seven federally recognized tribes that have potential ancestral ties to Jefferson County, Kentucky. These tribes were identified by the *U.S. Department of Defense 2007 Desk Guide to Military Installations and Federally Recognized Tribes Located in the South and Eastern United States* (VA 2007). VA invited these tribes to participate in the NEPA process as Sovereign Nations per EO 13175. VA sent a coordination and consultation letter to each of these tribes, via certified mail, in July 2011. As of the date of this PEA, no response from any of these seven tribes has been received (VA 2012).

PUBLIC INVOLVEMENT

VA, as the Federal proponent of the Proposed Action, published and distributed the Draft PEA for a 30-day public comment period as announced by a Notice of Availability (NOA) published in the Louisville Courier-Journal on March 30, 2012 through April 12, 2012. Review copies were made available for public review at the Louisville Free Public Library – Westport Branch, as well as at the existing Louisville VAMC. VA also made a copy available for download via the internet through a link on the Louisville VAMC internet website. In addition, VA held a public meeting on April 18, 2012 at Kammerer Middle School, located near the Brownsboro Site, to discuss the Proposed Action and the Draft PEA, and to accept comments on the Draft PEA. 203 people signed in at the public meeting. VA received:

- 28 verbal public comments during the public meeting held at Kammerer Middle School on April 18, 2012.
- 26 written public comments left in the drop box after the public meeting held at Kammerer Middle School on April 18, 2012.
- 83 written public comments were received via email or US Mail.
- 144 people signed a petition and sent emails to VA and Kentucky elected officials (93 within the public comment period) requesting that VA select the St. Joseph Site for the proposed VAMC and noted that the St. Joseph Site is approximately 3 times larger than the Brownsboro Site for approximately one half of the cost. (It should be noted that this statement is speculative; VA has not negotiated a price for the St. Joseph Site).

Many of the responders provided similar comments and many provided multiple comments. The comments that are relevant to the Draft PEA and VA's responses are summarized in Appendix D. Where applicable, the Final PEA was modified to reflect these comments.

In addition, the following input was provided by local government agencies or quasi-government agencies regarding the Draft PEA:

Greater Louisville, Inc.

Greater Louisville, Inc. indicated that as the chamber of commerce and economic development agency in Metro Louisville, it is in strong support of VA's decision to build a new VAMC in Louisville and that a project of this size and significance is extremely important to the community and critical

to serving the many Veterans in the region. Greater Louisville, Inc. urged VA to quickly move forward with the project so that construction can begin as soon as possible.

City of Indian Hills

The City of Indian Hills indicated that it is adamantly opposed to the Brownsboro Site for the VAMC and that this is also the opinion of many of its residents who have contacted them. The City indicated that traffic volumes in the area of the Brownsboro Site are already more than the roads can handle, particularly during rush hours, and that this situation would be made worse by the proposed VAMC. The City also expressed skepticism regarding any newly designed intersections and roadways to expedite traffic flow. The City asked VA to reconsider its preference for the Brownsboro Site due to the tremendous impact that project would have on the community.

Louisville Metro Council

Louisville Metro Council representatives for the Brownsboro Site area noted that traffic is the main concern for residents in the surrounding area and that if VA selects this site, they hope that the Federal government would help streamline proposed improvements to the I-264/Brownsboro Road interchange. Louisville Metro Council noted that the design phase for the interchange improvement project was recently approved by the Kentucky General Assembly and would be an important improvement when additional traffic is added to the surrounding area. Louisville Metro Council also recommended that VA work with the Mayors of Graymoor-Devondale, Northfield, and Crossgate regarding any new traffic patterns, including accessing and exiting the neighborhoods.

Louisville Metro Council noted that as a Federal agency, VA is not required to follow the planning and design standards set forth in the Louisville Metro Land Development Code. However, they requested that VA include Louisville Metro Planning and Design Services as a member of the planning team during the project design phase, who can advise on the design standards, including lighting and landscaping buffers, the Louisville residents have become accustomed to.

Louisville Metro Council also noted that many residents of Crossgate and Graymoor-Devondale currently experience drainage problems and are concerned about the potential adverse effects of the proposed VAMC on the already taxed drainage system. They requested that VA work with the Louisville Metropolitan Sewer District and neighbors in developing a comprehensive drainage plan that will help address these concerns.

CONCLUSIONS

The Action Alternatives would result in the effects identified throughout Section 3 of this PEA. These include potential less-than-significant adverse impacts to aesthetics, air quality, cultural resources, soils, hydrology and water quality, noise, land use, floodplains and coastal zones, solid and hazardous materials, parking, and utilities. All of these effects would be maintained at less-than-significant levels through careful coordination and implementation of general BMPs and management measures, and compliance with regulatory requirements.

The Preferred Action Alternative (Brownsboro Site) could result in significant impacts to transportation due to the current inadequate level of service at the intersection of Brownsboro Road (US 42) and Northfield Drive/Brownsboro Road and the anticipated increase in traffic volume as a result of the construction and operation of the replacement VAMC. However, through roadway improvements in consultation with pertinent Federal, State, and local regulatory agencies, some already planned by KTC, these potential impacts would be mitigated to less-than-significant levels. This issue would be specifically analyzed, addressed, and mitigated within a subsequent SEA.

The Alternate Action Alternative (St. Joseph Site) could result in significant adverse impacts to wetlands and Waters of the US, and protected wildlife and habitat at the site. However, through

environmentally sensitive site design and following good engineering practices, as well as consultation with pertinent Federal, State, and local regulatory agencies, these potential significant impacts would be avoided or reduced to less-than-significant levels. Wetlands and Waters of the US, and protected wildlife and habitat would be avoided to the extent possible. These issues would be specifically analyzed, addressed, and mitigated within a subsequent SEA.

The Alternate Action Alternative (St. Joseph Site) could also result in significant adverse impacts to transportation (traffic) at the intersections of Old Henry Road with Bush Farm Road/Factory Lane, and LaGrange Road and Factory Lane/Chamberlain Lane due to the anticipated increase in traffic associated with the proposed VAMC at these intersections. However, through roadway improvements in consultation with pertinent Federal, State, and local regulatory agencies, these potential impacts would be mitigated to less-than-significant levels. This issue would be specifically analyzed, addressed, and mitigated within a subsequent SEA.

The analysis performed in this PEA concludes there would be no significant impacts, either individually or cumulatively, to the local environment or quality of life associated with implementation of either of the Action Alternatives, provided that the mitigation, avoidance, and management measures described in this PEA are implemented. This PEA's analysis determines, therefore, that an Environmental Impact Statement (EIS) is unnecessary for implementation of either of the Action Alternatives, and that a mitigated FONSI is appropriate.

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SECTION 1: INTRODUCTION

1.1 Introduction

This Section provides the reader with necessary introductory and background information concerning the Proposed Action for proper analytical context, identifies the purpose of and need for the Proposed Action, and describes the Federal decision to be made. A summary of public and agency involvement (and key issues and concerns identified) is provided in Section 4. Federal, State, and local regulations applicable to the Proposed Action are identified in Section 11.

This Programmatic Environmental Assessment (PEA) has been prepared to identify, analyze, and document the potential physical, environmental, cultural, and socioeconomic effects associated with the Department of Veterans Affairs' (VA's) selection and acquisition of a site for a replacement VA Medical Center (VAMC) within an approximate 15-mile radius of the University of Louisville Healthcare Center, in Louisville, Jefferson County, Kentucky. Preparation of this PEA is required in accordance with the National Environmental Policy Act of 1969 ([NEPA]; 42 United States Code [USC] 4321 *et seq*.), the President's Council on Environmental Quality (CEQ) Regulations Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] 1500-1508), and 38 CFR Part 26 (*Environmental Effects of the Department of Veterans Affairs Actions*). This PEA also has been prepared in accordance with VA's *NEPA Interim Guidance for Projects* (2010).

Once a site (i.e., alternative) is selected and acquired through this programmatic NEPA process, VA would prepare a subsequent, site-specific, "tiered" EA (Site-specific EA or SEA) to more precisely analyze and evaluate the potential effects of the construction and operation of the proposed VAMC. At this latter point, additional design information would be available upon which to conduct that future environmental effects analysis. VA would incorporate and further develop the mitigation, avoidance, and management measures identified in this PEA into that future design process and tiered NEPA analysis to ensure environmental effects would be maintained at less-than-significant levels.

This approach is fully consistent with the NEPA and CEQ Regulations. In cases such as these, the CEQ Regulations establish and recommend a "tiered" approach to the environmental impact analysis process: "Agencies are encouraged to tier their environmental (documents)…to focus on the actual issues ripe for decision at each level of environmental review…. Tiering may also be appropriate for different stages of actions" (40 CFR Part 1502.20). These regulations specify that such potentialities (i.e., ultimate construction and operation of the replacement VAMC) should be introduced, but can be deferred to future analyses and documentation when they have "ripened," or when more complete information becomes available.

As such, this PEA assesses the potential effects of selecting and acquiring a site for the ultimate development of the proposed VAMC, and broadly assesses the effects of the future proposed construction and operation of the VAMC under each alternative considered. Again, site-specific effects would be more thoroughly analyzed and evaluated in a subsequent SEA, once this programmatic NEPA process is complete and a site has been selected. This PEA includes a brief analysis of the effects of the transfer of operations from the existing VAMC to the proposed replacement VAMC. VA's plans for the existing VAMC have not been determined

and would be the subject of a feasibility study and analysis. Existing VAMC operations would continue until the new VAMC is operational in approximately 2018 and then would be transferred to the new facility. At the time operations are transferred to the new VAMC, the existing VAMC would continue to be used by VA for other purposes, would be used by other undefined entities for undefined purposes, or would be decommissioned; however, the level of decommissioning of the existing VAMC is unknown at this time.

The proposed future VAMC would include:

- A minimum of 800,000 gross square feet, full service (inpatient and outpatient) VAMC, including a three or more-story, approximately 300,000-square foot building footprint.
- Associated, required parking (i.e., approximately 2,400 spaces) and other required site improvements and amenities.

To meet VA's requirements, the site must be within an approximate 15-mile radius of the University of Louisville Healthcare Center, in Louisville, Jefferson County, Kentucky.

This PEA examines three alternatives, including two Action Alternatives (Preferred Action Alternative and Alternate Action Alternative) and the No Action Alternative as defined below:

- **Preferred Action Alternative (Brownsboro Site):** Acquire the Brownsboro Site for the construction and operation of a new VAMC. The Brownsboro Site is located southeast of the intersection of Brownsboro Road and I-264. This site includes approximately 36 acres of unimproved, former agricultural land. This site is located approximately 3.5 miles east of the existing Louisville VAMC.
- **Alternate Action Alternative (St. Joseph Site):** Acquire the St. Joseph Site for the construction and operation of a new VAMC. The St. Joseph Site is located east of I-265 and south of Factory Lane. This site includes approximately 99 acres of mostly unimproved, agricultural land with abandoned outbuildings. This site is located approximately 10.8 miles east of the existing Louisville VAMC.
- **No Action Alternative**: Do not implement the Proposed Action as identified and continue with operations as currently conducted at the existing Louisville VAMC.

In accordance with the NEPA regulations described above, this PEA: allows for public input into the Federal decision-making process; provides Federal decision-makers with an understanding of potential environmental effects of their decisions, before making these decisions; identifies measures the Federal decision-maker could implement to reduce potential adverse environmental effects; and documents the NEPA process.

1.2 Background

VA currently operates an existing VAMC located at 800 Zorn Avenue in Louisville, Kentucky (see Figure 1). In addition to this VAMC, VA currently utilizes four outpatient clinics throughout the Louisville, Kentucky “catchment area” (includes western Kentucky and southern Indiana) where Veteran medical care services are provided.

The Louisville VAMC facilities make healthcare services available to approximately 166,000 US Veterans within the Louisville, Kentucky "catchment area." Of those, 59,000 are currently enrolled to receive care annually. This enrollment is expected to increase to more than 65,000 in the next ten years. This would result in annual visits growing from 610,000 to 753,000 during the same time period. This increasing need, as well as the configuration and condition of the existing VAMC facilities, make them insufficient to meet the current and future needs of VA’s healthcare mission in the region.

1.3 Purpose and Need

The *purpose* of the Proposed Action is to provide a replacement full-service hospital, or VAMC, (inpatient and outpatient) of sufficient capacity to service the current and projected future healthcare needs of US Veterans requiring services from the Louisville VAMC catchment area. VA has sized this required site and facility to accommodate an anticipated 65,000 or more patients per year.

The Proposed Action is *needed* to replace the existing Louisville VA medical facilities that have reached the end of their serviceable lives. The conditions at the existing facilities, as well as the configuration of the existing facilities, are inadequate to effectively and efficiently meet the needs of VA's healthcare mission in the region. The existing VAMC includes several constraints (e.g., floor to ceiling height, limited developable area, parking deficiencies, etc.) that prevent the renovation of the existing VAMC or major additions to the site.

Currently, VA provides inpatient and outpatient medical services to Veterans at the existing VAMC in Louisville and four outpatient clinics in the Louisville area. Under current conditions, VA does not have sufficient capacity to provide adequate regional healthcare services to meet the current and future needs of US Veterans. The current hospital and clinics are operating at maximum capacity with limited opportunity for expansion to meet these needs. In addition, parking at the existing VAMC is insufficient. The insufficient facilities challenge VA's ability to safely, economically, and consistently provide high-quality, integrated healthcare services to the region's Veterans.

Between 1998 and 2004, VA completed a Capital Asset Realignment for Enhanced Services (CARES) Decision to identify the demand for VA care and projecting into the future the appropriate function, size, and location for VA facilities. As part of the CARES Decision, VA identified the need to replace the Louisville VAMC and recommended that VA complete a comprehensive study of the feasibility, cost-effectiveness, and impact of replacing the current Louisville VAMC with a new state-of-the-art medical center.

The CARES Decision reported the Louisville VAMC has significant space issues. At the current capacity, the Louisville VAMC is short of space needed for workload generated in 2011 and has significant renovation limitations. Workload projections expect that to significantly grow by 2020. Because of these factors, the Louisville VAMC has very little transitional space available and there is no appreciable vacant space on the campus.

VA determined the size of the replacement VAMC needed through the conduct of a strategic analysis. VA's strategic analysis estimated the future healthcare requirement within the region would exceed 65,000 Veterans patients per year (i.e., for all healthcare services required). VA then used these data to determine space requirements for specific services. This resulted in an estimated total size requirement for the replacement VAMC. VA then reviewed each specific area with clinical experts using VA space design guides, when available, to ensure that the space designated would meet Veterans' needs, now and in the future. Through this process, VA identified modifications to the original space plan, and provided appropriate justification, referencing design guides and directives. Through this process, VA established the proposed minimum size of the replacement VAMC to be a minimum of 800,000 gross square feet with approximately 2,400 parking spaces, and a minimum site size of 25 acres.

The ideal location would be easily accessible; located strategically within an approximate 15-mile radius of the University of Louisville Healthcare Center, in Louisville, Jefferson County, Kentucky; and provide adequate space for the future establishment and operation of a VAMC.

1.4 Decision-Making

This PEA has been prepared to identify, analyze, and document the potential physical, environmental, cultural, and socioeconomic impacts associated with VA's proposed selection and acquisition of a site for a replacement VAMC within an approximate 15-mile radius of the University of Louisville Healthcare Center, in Louisville, Jefferson County, Kentucky. VA, as a Federal agency, is required to incorporate environmental considerations into their decision-making process for the actions they propose to undertake. This is done in accordance with the regulations identified in Section 1.1.

Ultimately, VA would decide, in part based on the analysis presented in this PEA and after having taken potential environmental, cultural, and socioeconomic effects into account, whether VA should implement one of the Action Alternatives and, as appropriate, carry out mitigation and management measures to reduce effects to the environment. VA would also consider other factors, such as cost, time, engineering feasibility, and the like, in their decision-making process.

1.5 Related Environmental Documents

Additional information concerning the Action Alternative sites reviewed as part of this PEA included:

- Department of Veterans Affairs, Request for Expressions of Interest No. VA-101-10-RI-0076, April 7, 2010.
- Capital Asset Realignment for Enhanced Services (CARES) Decision, prepared by VA and dated May 2004.
- CARES Stage I Summary Report Site: Louisville, prepared by PriceWaterhouseCooper LLP and dated August 2005.
- Feasibility Study, prepared by URS Smith Group and dated October 6, 2009.
- Phase I Environmental Site Assessment (ESA), Site 1 – Brownsboro Site, prepared by Linebach Funkhouser, Inc. and dated November 29, 2010.
- Phase I ESA, Site 2 – Fegenbush Site, prepared by Linebach Funkhouser, Inc. and dated November 29, 2010.
- Phase I ESA, Site 3 – St. Joseph Site, prepared by Linebach Funkhouser, Inc. and dated November 29, 2010.
- Phase I ESA, Site 4 – Downtown Site, prepared by Linebach Funkhouser, Inc. and dated November 29, 2010.
- Phase I ESA, Site 5 – Existing VAMC Site, prepared by Linebach Funkhouser, Inc. and dated May 6, 2011.
- Preliminary Geotechnical Exploration Report, prepared by GEM Engineering, Inc. (GEM) and dated January 2007.
- Design Phase Geotechnical Exploration Report, prepared by GEM and dated June 2007.
- Report of Geotechnical Site Characterization Report, prepared by AMEC and dated August 2009.

- Wetland Delineation of Proposed Midlands Development (a.k.a. Brownsboro Site), prepared by URS and dated July 8, 2011.

- Initial Cultural Resources Impact Predictions for the Proposed Replacement of the Louisville VA Medical Center, Louisville, Kentucky, prepared by R. Christopher Goodwin and Associates, Inc. (RC Goodwin) and dated June 22, 2011.

- Preliminary Geotechnical Investigation, VA Medical Center Potential Sites, Louisville, Kentucky, prepared by Greenbaum Associates, Inc. and dated July 25, 2011.

- Wetlands Determination, Proposed Louisville VAMC - Brownsboro Site, prepared by TTL and dated February 2012.

- Wetlands Delineation, Proposed Louisville VAMC - St. Joseph Site, prepared by TTL and dated February 2012.

- Threatened and Endangered Species Habitat Survey, Proposed Louisville VAMC - St. Joseph Site, prepared by TTL and dated February 2012.

- Running Buffalo Clover Survey, Proposed Louisville VAMC - St. Joseph Site, prepared by TTL and dated May 2012.

- Draft Phase I Archeological Inventory, Brownsboro Site, prepared by RC Goodwin, dated March 2012.

- Draft Phase I Archeological Inventory, St. Joseph Site, prepared by RC Goodwin, dated May 2012.

- Traffic Impact Analysis, VA Medical Center, Old Brownsboro Road Site, prepared by BTM Engineering, Inc. (BTM) and dated March 2012.

- Draft Traffic Impact Analysis, VA Medical Center, Factory Lane Site, prepared by BTM and dated March 2, 2012.

- Draft Traffic Impact Study, Brownsboro Road (US 42) and Henry Watterson Expressway (I-264), prepared by Oculus, Inc. and Olsson Associates (OA), dated May 2012.

- Draft Self-Contained Appraisal, Brownsboro Site, prepared by Galloway Appraisals (Galloway) and dated March 2012.

SECTION 2: DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

2.1 Introduction

This Section provides the reader with necessary information regarding the Proposed Action and its alternatives, including those alternatives that VA initially considered, but eliminated, and the reasons for eliminating them. The screening criteria and process developed and applied by VA to hone the number of reasonable sites for the Proposed Action are described, providing the reader with an understanding of VA's rationale in ultimately analyzing two Action Alternatives (the Brownsboro Site and the St. Joseph Site) in this PEA.

2.2 Proposed Action

VA's Proposed Action is to select and acquire a site for the construction and operation of a minimum of 800,000 gross square feet, full service (inpatient and outpatient) replacement VAMC, including a three or more-story, approximately 300,000-square foot building footprint. The Proposed Action would also include required parking (approximately 2,400 parking spaces), access, and other required site amenities and improvements, within an approximate 15-mile radius of the University of Louisville Healthcare Center, in Louisville, Jefferson County, Kentucky.

VA established the size of the facility and land area required for this Proposed Action based on the number of US Veterans within the Louisville VAMC "catchment area" currently requiring healthcare services, and those Veterans forecast to require such services in the Louisville area over the life of the proposed facility. The Louisville VAMC provides services to a population of 166,000 Veterans in the 35-county region including western Kentucky and southern Indiana. Under the considered alternatives to the Proposed Action, VA would purchase land at one of two alternative sites and construct a new VAMC to replace the existing VAMC.

Should VA propose to construct and operate a replacement VAMC, the environmental effects of the site preparation, design, construction, and operation of the replacement VAMC at a specific site would be analyzed within a subsequent, tiered, SEA.

The disposition of the current Louisville VAMC and the other four VA outpatient clinics throughout the Louisville VAMC "catchment area" is unknown at this time, and would be the subject of a future feasibility study and analysis. Existing VAMC operations would continue until the new VAMC is operational and then would be transferred to the new facility. At the time operations are transferred to the new VAMC, the existing VAMC would continue to be used by VA, would be used by other undefined entities, or would be decommission; however, the level of decommissioning of the existing VAMC is unknown at this time.

The replacement VAMC would operate 24 hours a day and seven days a week. Approximately 1,750 staff would work at the VAMC when at full capacity. These staff would be comprised of people currently working at the existing Louisville VAMC medical facilities, and some staff to be hired. During a busy day, up to 1,080 Veterans would visit the facility for medical services. Over the course of an average year, VA anticipates that more than 65,000 Veterans would use the services of the proposed VAMC. The new VAMC would be available to all US Veterans, but

likely would be most heavily utilized by Veterans within the regional catchment area, residing generally in western Kentucky and southern Indiana. Prior to construction, VA would obtain all required Federal, State, and local permits for the proposed construction from appropriate government authorities.

As described above, once a site (i.e., alternative) is selected and acquired through this programmatic NEPA process, VA would prepare a subsequent SEA to more precisely analyze and evaluate the potential effects of the construction and operation of the proposed replacement VAMC. VA would incorporate and further develop the mitigation, avoidance, and management measures identified in this PEA into that future design process and tiered NEPA analysis to ensure potential environmental effects are maintained at less-than-significant levels.

2.3 Alternatives Analysis

The NEPA, CEQ Regulations, and 38 CFR Part 26 require all reasonable alternatives to be rigorously explored and objectively evaluated. Alternatives that are eliminated from detailed study must be identified along with a brief discussion of the reasons for eliminating them. For purposes of analysis, an alternative was considered “reasonable” only if it would enable VA to accomplish the primary mission of providing a suitable VAMC site that meets the purpose of and need for the Proposed Action. “Unreasonable” alternatives would not enable VA to meet the purpose of and need for the Proposed Action.

2.3.1 Alternatives Development (Screening Criteria)

VA undertook a sequential planning and screening process, seeking reasonable alternatives for the Proposed Action. This process is summarized below:

- After identifying the regional capability shortfalls, VA began developing alternatives to support the anticipated increased needs that ranged from reconfiguring the existing Louisville VAMC at 800 Zorn Avenue through new construction and renovation, to constructing a replacement VAMC at the existing site or at some new site in the Louisville area. In 2009, VA commissioned a feasibility study which concluded that each alternative was feasible, but identified that each alternative presented various challenges or advantages. The feasibility study did not attempt to identify any particular new site, but rather evaluated a generic new site’s feasibility compared with reconfiguring the existing Zorn Avenue facility.

- To determine the availability of previously undeveloped property that might satisfy its need, in April 2010 VA publicly sought expressions of interest from potential offerors, via advertisement. VA identified that the site must be located in a specific area for accessibility and proximity to related healthcare facilities in Louisville. Specifically, the site needed to be located within an approximate 15-mile radius of the University of Louisville Healthcare Center, in Louisville, Jefferson County, Kentucky. VA's intentions were that the site should be able to accommodate an 800,000-gross square foot facility and approximately 2,400 parking spaces. Overall, VA required a minimum of 25 acres of developable land to accommodate the replacement facility.

VA received numerous responses to the advertisement, a number of which met the screening criteria for the proposed VAMC. Through a comprehensive and detailed screening process, VA conducted a site-selection process where a multi-disciplinary board consisting of VA employees, visited each site option to rank and rate each site based on predetermined, objective criteria. The site-selection process further narrowed the number of reasonable sites based on more refined analyses of the site-specific aspects, issues, and concerns. These included an analysis of: surrounding land uses; proximity to local hospitals; current zoning;

accessibility to transportation, shopping, restaurants, and other nearby amenities; utility availability; overall site condition; and visible or known environmental issues/features (see *screening criteria*, below).

As a result of this screening, VA identified three potential greenfield (i.e. mostly undeveloped) sites that appeared to satisfy all of the criteria and scored the highest of all sites that satisfied VA's minimum criteria as advertised, based on the objective analysis. In addition to the three greenfield sites, VA also identified the Downtown Site (offered by the University of Louisville and the City of Louisville) and the potential to reconfigure the existing Louisville VAMC site as candidate sites for the replacement VAMC.

The following provides an overview of the types of criteria VA used as a part of this *screening process* of the initial greenfield site options:

- **Location**: In selecting a site for a VA medical facility, the initial consideration is the availability of adequately-sized, developable parcels of land in the area where the facility is to be built. VA established a delineated geographic area that would be accessible to most of the Veterans to be served by the facility. This revealed that the site needs to be within an approximate 15-mile radius of the University of Louisville Healthcare Center, in Louisville, Jefferson County, Kentucky.

- **Access:** The site needs to have ready access from a primary road and not be located on a congested or narrow secondary road that would make access difficult. Equally, the site must be easily accessible by handicapped Veterans. The site must also meet VA's security and setback requirements.

- **Utilities:** The site needs to have all utilities readily available, including water, sanitary sewer, natural gas, electric, telecommunications, and fiber optics.

- **Parking:** The site needs to have adequate, developable land configured in a manner to accommodate VA's parking requirements of approximately 2,400 parking spaces, as well as functional requirements.

- **Cost:** The site needs to be able to be developed to suit VA's needs at reasonable costs.

- **Size:** The site needs to be able to provide dedicated space for a full-service hospital, as well as required parking and other amenities. Based on VA's requirements, the site needs to include at least 25 acres of developable ground.

- **Availability:** The site should be available to facilitate design and construction of the replacement facility.

- **Environmental**: The site must have few environmental concerns, such as hazardous waste contamination, asbestos, lead-based paint, wetlands, floodplain or flooding issues, geotechnical, cultural or biological concerns, or other regulated environmental resource.

Through these analyses, VA concluded that five sites best met the initial screening criteria. These sites: the Brownsboro Site, the Fegenbush Site, the St. Joseph Site, the Downtown Site, and the Existing VAMC Site, are described below. The locations of these five sites are depicted on Figure 1.

- **Brownsboro Site:** The Brownsboro Site is located southeast of the intersection of Brownsboro Road and I-264 and includes approximately 36 acres of unimproved, former agricultural land. This site is level and currently mostly fallow agricultural land with scattered trees in the northwest corner where a farmstead was formerly located. This site is located approximately 3.5 miles east of the existing Louisville VAMC.

- **Fegenbush Site:** The Fegenbush Site is located east of Fegenbush Lane and north of South Hurstbourne Parkway. This site is relatively level across the majority of the property, with a moderate slope to the south in the southern portion of the property. Strips of wooded land separate agricultural tracts in the central portion; the southwestern portion is wooded land. A possible wetland area is located in the western portion of the site. Remnants of farm buildings are located in the central portion of the site. This site includes approximately 51 acres of unimproved, mostly agricultural land. This site is located approximately 8.0 miles southeast of the existing Louisville VAMC.

- **St. Joseph Site:** The St. Joseph Site is located east of I-265 and south of Factory Lane. This site includes approximately 99 acres of mostly unimproved, agricultural land with abandoned farmstead outbuildings in the northwestern portion of the site. The southern and central portions of the site are relatively level; the northern portion slopes downward to a creek that crosses the northern portion of the property. This site is located approximately 10.8 miles east of the existing Louisville VAMC.

- **Downtown Site:** The Downtown Site is generally bounded by South Jackson Street to the west, East Madison Street to the north, South Clay Street to the east, and East Broadway Street to the south. This site includes approximately 29 acres and includes five city blocks with associated roads and alleys. This site is an assemblage of 80 parcels with 20 property owners and is developed with several commercial and retail buildings and parking lots. This site is located adjacent (southeast) to the University of Louisville Healthcare Center and approximately 3.0 miles southwest of the existing Louisville VAMC.

- **Existing VAMC Site:** The Existing VAMC Site is generally bounded by undeveloped land, Mellwood Avenue, and I-71 to the north; Zorn Avenue and residential neighborhoods to the east; and residential neighborhoods to the south and west. This site includes approximately 48 acres. The Existing VAMC Site contains approximately 22 acres of land in the central and northwestern portions of the site that are fully developed with the eight to nine-story main hospital building, several smaller buildings, and approximately 1,200 surface level parking spaces. Areas of the site to the south, east, and northeast of the developed areas steeply slope down from the developed areas and are heavily wooded.

FIGURE 1
INITIAL SITES
REGIONAL LOCATION MAP

PROGRAMMATIC ENVIRONMENTAL ASSESSMENT
PROPOSED VAMC
LOUISVILLE, KENTUCKY

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2.3.2 Initial Evaluation of Alternatives

In 2011, VA began this NEPA process and subjected each of the above-described five initial candidate sites to a second round of screening. This second round of screening was more rigorous than the first round. As part of this second round of screening, VA completed Phase I Environmental Site Assessments (ESAs), ALTA Surveys, geotechnical investigations (all except Downtown Site), and additional onsite environmental investigations at each of the five sites. In addition, VA consulted with Federal, State, and local regulatory agencies concerning the potential to implement the Proposed Action at each of these five sites.

Table 1 provides a comparative summary of the five sites' characteristics based on this second round of screening.

Table 1. Summary of Site Characteristics of Initial Alternatives*

Characteristic	Brownsboro Site	Fegenbush Site	St. Joseph Site	Downtown Site	Existing VAMC Site
Size (Acres)	36	51	99	29	48 (22 developable)
Zoning	Planned development. Likely compatible with VAMC	Residential and commercial. Likely compatible with VAMC	Residential and commercial. Likely compatible with VAMC	Commercial, manufacturing, office/residential.Likely compatible with VAMC	Residential. Likely compatible with VAMC
Current Use	Fallow agricultural land with scattered trees	Mostly agricultural land with strips of woods	Mostly agricultural land	Commercial, retail, institutional, church, parking lots	Louisville VAMC
Current Buildings	Former farmstead, removed	Remnants of farm buildings	Remants of farmstead buildings	Approximately 20 mostly commercial, church and a residence	Nine-story VA hospital and support buildings
Surrounding Land Uses	Suburban area, commercial north, residential neighboorhoods east and south, I-264 west	Suburban area; school (Mercy Academy), golf course, farmland north; undeveloped land and scattered residences east and south; GE Appliance Park west	Suburban area; undeveloped land and scattered residences north; pasture, Covenant Church and School east; unimproved land, residential neighborhood, Jewish Hospital Medical Center south; I-265 and residences west	Urban area; University of Louisville Hospital north and west; residential neighborhoods and commercial properties east and south, battered women's shelter east	Suburban area; undeveloped land and I-71 north; residential neighborhoods east, south and west
Topography	Level	Mostly level, moderate slope to south in southern portion	Central and southern portions mostly level, northern portion slopes to north	Level	Central and western portions level; southern, eastern and northeastern portions steeply sloping

Table 1. Summary of Site Characteristics of Initial Alternatives* (continued)

Characteristic	Brownsboro Site	Fegenbush Site	St. Joseph Site	Downtown Site	Existing VAMC Site
NRHP Historic Resources	No NRHP historic districts or eligible structures on-site or immediately adjacent	No NRHP historic districts or eligible structures on-site or immediately adjacent	No NRHP historic districts or eligible structures on-site or immediately adjacent	Part of site is in Phoenix Hill National Register District, 8 site structures contribute to district or individually eligible; Green Street Baptist Church, a Louisville landmark and NRHP-listed on-site	Existing hospital NRHP eligible, in viewshed of Louisville Water Pump Station 31 (historic landmark)
Archeological Resources	None known	Two archeological sites identified, not assessed	None known	None known	None known
Karst Conditions	High karst potential area	High karst potential area	High karst potential area	Not in a high karst potential area	Known karst area, sinkholes on-site
Depth to Bedrock	7 to 19 feet below grade	4 to 11 feet below grade	7 to 15 feet below grade	40 or more feet below grade	20 or more feet below grade in developed area
Soils	Classified prime farmland	Classified prime farmland	Classified prime farmland	Not prime farmland	Not prime farmland
Surface Water	None on-site or near site	Intermittent stream near east site boundary leads to Fern Creek (500 feet east)	Stream crosses northern portion of the site	None on-site or near site	Stream (VA Ditch) crosses eastern portion of site, outside of development area
Wetlands	No potential wetlands on-site	City identifed potential wetland in western portion of site that was also observed during site visit; but not on NWI.	One small pond identified on NWI near stream; two small wetlands in eastern and southern portions of the site.	No potential wetlands on-site	No potential wetlands on-site
Floodplains	Not located in 100- or 500-year floodplain	Not located in 100- or 500-year floodplain	Not located in 100- or 500-year floodplain	Southeastern portion of site is in 100-year floodplain	Eastern portion of site, outside development area, is in 100-year floodplain
Threatened and Endangered Species	Situated within range of a known Indiana Bat maternity colony. USFWS stated that site does not contain suitable roost trees and future development would not likely affect the bats.	Situated within potential Indiana Bat habitat range. Site habitat may support Running Buffalo Clover and Kentucky Glade Cress (Federal-listed species).	Situated within potential Indiana Bat habitat range. Site habitat may support Running Buffalo Clover (Federal-listed species).	None identified	Situated within range of a known Indiana Bat maternity colony. Site habitat may support Running Buffalo Clover (Federal-listed species).

Table 1. Summary of Site Characteristics of Initial Alternatives* (continued)

Characteristic	Brownsboro Site	Fegenbush Site	St. Joseph Site	Downtown Site	Existing VAMC Site
Hazardous Building Materials	None	None	None	Likely considerable asbestos and lead based paint present in buildings.	Asbestos known and lead based paint possible in site buildings
Soil and Groundwater Contamination	None known or likely	None known or likely	None known or likely	Site includes several current and historic operations of concern (gas stations, auto repairs shops, dry cleaners, industrial operations). Known lead impacted soil in the northern portion of the site (Former Blue Motor Coach). Current and historic ASTs and USTs.	A 2,000-gallon heating oil UST was removed in 1986 with no sampling.
Traffic	The KY 22/I-264 interchange is congested. Recent improvements to nearby the I-264/Westport Road interchange and the planned 2012 ramp at KY 22/I-264 would significantly improve existing conditions. Transportation infrastructure with 2012 improvements may be adequate for VAMC with minimal improvements	Transportation infrastructure is likely adequate with improvements to the site entry and exit points.	Trasportation infrastructure around site unlikely to be adequate. Improvements to roads and intersection may be necessary.	Transportation infrastructure is likely adequate with improvements to the site entry and exit points.	Transportation infrastructure is likely adequate with improvements to the site entry and exit points.
Utilities	Primary electrical feed has capacity for VAMC and could be upgraded easily with new transfomer. Backup feed would require a new substation.	Primary electrical feed would be available for the proposed VAMC. Backup feed would require extensive reworking of existing lines and additional ROW.	Primary electrical feed would be available for the proposed VAMC. Backup feed would require a second transformer not yet installed.	Primary electrical feed to the proposed VAMC would require a new substation.	Services already available and likely adequate with minor upgrades.
Property Under Control for Acquistion	Yes	Yes	Yes	Partially. Site assemblage consists of 80 parcels and 20 property owners. Green Street Baptist Church has indicated desire to remain at current location.	Yes

*Table provides a summary of conditions; it is not a detailed analysis.

Table 2 provides a comparative summary of the potential environmental issues at each of the five sites based on this second round of screening.

Table 2. Summary of Potential Environmental Effects (Without Management and/or Mitigation Measures) of Initial Alternatives *

Key:

Potential severe impact.
Potential moderate impact.
Potential minimal impact.
No identified potential impact.

*Table provides a summary of conditions; it is not a detailed analysis.

Resource Area	Brownsboro Site	Fegenbush Site	St. Joseph Site	Downtown Site	Existing VAMC Site
Aesthetics	Brownsboro Road is a designated Scenic Corridor. Adjacent residential neighborhoods. Owner of Brownsboro Site has received approval for mixed-use commercial and residential, including a six-story hotel	South Hurstbourne Road is a designated Scenic Corridor. Adjacent scattered residences.	Adjacent scattered residences and an apartment complex.	Urban Medical District Area.	Existing VAMC at the Site.
Air Quality	No concerns.	No concerns.	No concerns.	Approximately 20 older buildings on-site that likely contain abestos. Possible extensive asbestos abatement and demolition required. May produce emissions during demolition.	Existing VAMC buildings on-site. Some may contain asbestos. Possible asbestos abatement and demolition required. May produce emissions during demolition.
Cultural Resources	No NRHP Historic District or eligible structures on-site or immediately adjacant. No known archeological resources on-site. Further consultation with SHPO under Section 106 of the NHPA required. Archeological survey may be required.	No NRHP Historic District or eligible structures on-site or immediately adjacant. Two known archeological sites (not assessed) on-site. Further consultation with SHPO under Section 106 of the NHPA required. Archeological survey required.	No NRHP Historic District or eligible structures on-site or immediately adjacant. No known archeological resources on-site. Further consultation with SHPO under Section 106 of the NHPA required. Archeologicial survey may be required.	Part of Phoenix Hill National Reigister District, 8 site structures contributing to district or individually eligible. Green Street Baptist Church, a Louisville landmark and NRHP listed property on-site. Further consultation under Section 106 required.	The existing VAMC hospital (built in 1952) is eligible for listing on the NRHP. Consultation with SHPO required under Section 106 of the NHPA.
Geology and Soils	Site soil classified as prime farmland. Possible shallow bedrock. Site is in High Karst Potential area. Coordination required with local NRCS for loss of farmland. Rock blasting/extra building foundation efforts may be required.	Site soil classified as prime farmland. Possible shallow bedrock. Site is in High Karst Potential area. Coordination required with local NRCS for loss of farmland. Rock blasting/extra building foundation efforts may be required.	Site soil classified as prime farmland. Possible shallow bedrock. Site is in High Karst Potential area. Coordination required with local NRCS for loss of farmland. Rock blasting/extra building foundation efforts may be required.	Site does not contain prime farmland soil. No shallow bedrock likely. Site is not located in a High Karst Potential Area.	Site does not contain prime farmland soils. Site is located within High Karst Potential Area with known karst features (sinkholes). Rock blasting/extra building foundation efforts likely required.

Table 2. Summary of Potential Environmental Effects (Without Management and/or Mitigation Measures) of Initial Alternatives * (continued)

Resource Area	Brownsboro Site	Fegenbush Site	St. Joseph Site	Downtown Site	Existing VAMC Site
Hydrology and Water Quality	No surface water on or near the site.	No surface water on the site. Intermittent stream near east site boundary leads to Fern Creek, located 500 feet east of site.	A stream crosses the northern portion of the site in an area likely to be impacted by the proposed VAMC development. USACE and KDEP permits would be required for activities that impact the stream.	No surface water on or near the site.	A stream (VA Ditch) that crosses the eastern portion of the site, outside of proposed redevelopment area, is a protected waterway.
Wildlife and Habitat	Situated within range of a known Indiana Bat maternity colony. USFWS stated that site does not contain suitable roost trees and future development would not likely affect the bats.	Situated within potential Indiana Bat habitat range. Site habitat may support Running Buffalo Clover and Kentucky Glade Cress. Surveys needed.	Situated within potential Indiana Bat habitat range. Site habitat may support Running Buffalo Clover. Surveys needed.	Federally protected species in the area of the site, but site is highly developed and urban. Habitat values are very low.	Situated within range of a known Indiana Bat maternity colony. Site habitat may support Running Buffalo Clover. Habitat values are moderate to high in the eastern portion of the site. Proposed VAMC construction area is developed and has lower habitat values. However, construction activities could have a significant indirect adverse effect on the Indiana Bat (noise/vibration) Surveys needed. Coordination with USFWS required. Formal Section 7 consultation may be necessary.
Noise	Adjacent residential neighborhoods. Rock blasting may be required during construction.	Adjacent residences. Rock blasting may be required during construction.	Adjacent residential neighborhood. Rock blasting may be required during construction.	Urban area. Bedrock is deeper; no blasting required.	Adjacent residential area. Rock blasting may be required during construction.

Table 2. Summary of Potential Environmental Effects (Without Management and/or Mitigation Measures) of Initial Alternatives *

Resource Area	Brownsboro Site	Fegenbush Site	St. Joseph Site	Downtown Site	Existing VAMC Site
Land Use	Vacant former agricultural land. Currently zoned planned development district. VAMC would be generally consistent with planned development land uses. Brownsboro Site owner has received approval for mixed-sued commercial and residential, including a six-story hotel	Vacant agricultural land. Currently zoned residential and commercial. VAMC would be generally consistent with surrounding land uses.	Vacant agricultural land. Currently zoned residential and commercial. VAMC would be generally consistent with surrounding land uses.	Urban, mostly commercial land. Currently commercial, manufacturing, and office/residential. VAMC would be consistent with surrounding land uses (urban medical district).	Current VAMC on western portion of the site, zoned residential. Replacement VAMC would be consistent with current land use.
Floodplains, Wetlands, and Coastal Zone Management	No potential wetlands were identified at the site. Not located in 100- or 500-year floodplain.	Potential isolated wetland in western portion of the site (not jurisdictional). No wetlands identified on NWI map. Not located in 100- or 500-year floodplain. Wetland determination and delineation is required. Coordination with City regarding potential wetland required.	Stream and two ponds in northern portion of the site. Additional small potential wetlands observed in the far southern and in the central portions of the site. Not located in 100- or 500-year floodplain. A wetland determination and delineation is required. USACE and KDEP permits required for actions that impact the stream or wetlands.	No potential wetlands were identified at the site. The southeastern portion of the site is located in the 100-year floodplain. Development in the floodplain requires a permit from the City.	No potential wetlands were identified at the site. VA Ditch in the eastern portion of the site is a protected waterway. The eastern portion of the site is also in the 100-year floodplain. However, eastern portion of the site would not be impacted by proposed redevelopment.
Socioeconomics	No concerns.	No concerns.	No concerns.	Property not under control for acquisition.	No concerns.
Community Services	No concerns.	No concerns.	No concerns.	No concerns.	No concerns.

Table 2. Summary of Potential Environmental Effects (Without Management and/or Mitigation Measures) of Initial Alternatives *

Resource Area	Brownsboro Site	Fegenbush Site	St. Joseph Site	Downtown Site	Existing VAMC Site
Solid and Hazardous Wastes	No concerns.	No concerns.	No concerns.	Site includes several current and historic operations of concern (gas stations, auto repair shops, dry cleaners, industrial operations). There is lead impacted soil in the northern portion of the site. Asbestos is likely in many site buildings. Thorough Phase II ESA and asbestos survey required. Remediation (at minimum UST removal and proper handling of soils) and asbestos abatement required. Coordination with KDEP and City required.	A 2,000-gallon heating oil UST was removed in 1986 with no sampling. Sampling and closure of former UST required. Asbestos abatement may be required prior to building demolition.
Transportation and Parking	The KY 22/I-264 interchange is very congested. Recent improvements to nearby the I-264/Westport Road interchange and the planned 2012 ramp at KY 22/I-264 would significantly improve existing conditions. Transportation infrastructure with 2012 improvements may be adequate for VAMC with minimal improvements. Traffic Study required.	Transportation infrastructure is likely adequate for VAMC with improvements to the site entry and exit points. Traffic Study may be required.	Transportation infrastructure around the site is likely adequate for VAMC with improvements. Old Henry Road/I-265 interchange has capacity. Connector road to VAMC from Old Henry Road is best solution. Traffic Study required.	Rush hour traffic in the site area is high. Transportation infrastructure is likely adequate for VAMC with minimal improvements. Traffic Study required.	Transportation infrastructure is likely adequate for VAMC with minimal improvements. Traffic Study may be required. Existing VAMC has inadequate parking. Short term (during construction)– Proposed Action could worsen this. Long term (after new parking garage is built) – Proposed Action would improve this.
Utilities	Primary electrical feed has borderline capacity for VAMC, but could be upgraded easily with new transfomer. Backup feed would require a new substation.	Primary electrical feed would be available for the proposed VAMC. Backup feed would require extensive reworking of existing lines and additional ROW.	Primary electrical feed would be available for the proposed VAMC. Backup feed would require a second transformer not yet installed.	Primary electrical feed to the proposed VAMC would require a new substation.	Services already available and likley adequate with minor upgrades.

Table 2. Summary of Potential Environmental Effects (Without Management and/or Mitigation Measures) of Initial Alternatives *

Resource Area	Brownsboro Site	Fegenbush Site	St. Joseph Site	Downtown Site	Existing VAMC Site
Environmental Justice	No concerns.	No concerns.	No concerns.	Green Street Baptist Church, a historic African American Baptist Church that predates emancipation and is a Louisville landmark is located onsite. The church has repeatedly reiterated their desire to remain on-site and to resist relocation.	No concerns.

Based on this second round of screening and other site selection considerations, VA determined that the sites that best satisfied VA's needs to provide timely healthcare to Veterans and had the least potential impacts on the surrounding environment were the Brownsboro Site and the St. Joseph Site. VA identified the Brownsboro Site as the preferred site (Preferred Action Alternative) and the St. Joseph Site as the secondary site (Alternate Action Alternative). The remaining three sites (Fegenbush Site, Downtown Site, and Existing VAMC Site) initially evaluated by VA were eliminated from further consideration, and are not further evaluated in this PEA. The primary reasons for eliminating these three sites are summarized below:

- **Fegenbush Site:** Due to the absence of local amenities, distance from available local utilities, distance from the nearest major highway, and potential cultural resources and wildlife and habitat (refer to Table 2), the Fegenbush Site did not meet the VA requirements for the proposed new VAMC as well as the Brownsboro and St. Joseph Sites and was eliminated from further consideration.

- **Downtown Site:** Due to project timing, logistical, and cost considerations, as well as air quality, cultural resources, socioeconomic, solid and hazardous wastes, and environmental justice issues (refer to Table 2), the Downtown Site did not meet the VA requirements for the proposed new VAMC as well as the Brownsboro and St. Joseph Sites, and was eliminated from further consideration.

- **Existing VAMC Site:** Due to project timing and logistical considerations and cultural resources, geology and soils, wildlife and habitat, and transportation and parking issues (refer to Table 2), and additional deficiencies detailed in Section 1.3, the Existing VAMC Site did not meet the VA requirements for the proposed new VAMC as well as the Brownsboro and St. Joseph Sites, and was eliminated from further consideration.

As part of the second round of screening initiated in November 2011, VA identified the need to complete additional environmental studies at the Brownsboro and St. Joseph Sites as part of this NEPA process. These studies, now complete and incorporated into this PEA, included:

- **Cultural Resources** - Phase I Cultural Resources Surveys for the Brownsboro and St. Joseph Sites.

- **Wetlands** – Wetlands delineation at the St. Joseph Site; limited wetlands delineation at the Brownsboro Site.

- **Wildlife and Habitat** - Habitat surveys and possible endangered species surveys for the Indiana Bat and Running Buffalo Clover at the St. Joseph Site.

- **Transportation and Parking** – Traffic Impact Analyses for the Brownsboro and St. Joseph Sites.

- **Utilities** – Additional consultation with utility providers. Significant information would be obtained as part of the master planning work.

The results of these additional studies are detailed in Section 3 of this Final PEA.

2.3.3 Evaluated Alternatives

VA identified two reasonable alternatives (Brownsboro Site and St. Joseph Site) that best met all of VA's screening criteria for the Proposed Action. The two Action Alternatives considered in this PEA are the Preferred Action Alternative (Brownsboro Site) and the Alternate Action Alternative (St. Joseph Site).

Preferred Action Alternative (Brownsboro Site)

The Brownsboro Site is located southeast of the intersection of Brownsboro Road and I-264 and includes approximately 36 acres of unimproved, former agricultural land. This site is level and currently mostly fallow agricultural land with scattered trees in the northwest corner where a farmstead was formerly located. This site is located approximately 3.5 miles east of the existing Louisville VAMC. The regional location of this site, as well as other area features, are shown on Figures 1, 2, 3, and 4. Figure 5 provides a sketch of current conditions at the Brownsboro Site.

Should this Site be selected for development of the replacement VAMC, nearly 100 percent of the site would be developed or altered to accommodate the VAMC. The replacement VAMC would primarily be accessed from a reconfigured interchange at Brownsboro Road and I-264 along the northern boundary of the site. This interchange reconfiguration is being performed by KTC and is scheduled to begin in 2012. Further improvements to the current intersection may be required to accommodate access to the new VAMC. A gate-controlled emergency (not for routine traffic) access drive to the south to Carlimar Lane would likely be included. Utilities would be extended to the facility from adjacent areas.

The VAMC would likely include five- and six-story hospital buildings constructed in the central portion of the site, a parking garage and, surface-level parking. Following the completion of the replacement VAMC, VA would move the current operations at the existing VAMC to this facility.

Alternate Action Alternative (St. Joseph Site)

The St. Joseph Site is located east of I-265 and south of Factory Lane. This site includes approximately 99 acres of mostly unimproved, agricultural land with remnants of abandoned farmstead outbuildings in the northwestern portion of the site. The southern and central portions of the site are relatively level; the northern portion slopes downward to a creek that crosses the northern portion of the property. This site is located approximately 10.8 miles east of the existing Louisville VAMC. The regional location of this site, as well as other area features, is shown on Figures 1, 6, 7, and 8. Figure 9 provides a sketch of current conditions at the St. Joseph Site.

Should this site be selected for development of the replacement VAMC, the majority of the site would be developed or altered to accommodate the VAMC. However, as this site is larger than the Brownsboro Site, it is anticipated that development would include more green spaces. The replacement VAMC would likely be accessed from Factory Lane (northern boundary), Bush Farm Road (eastern boundary), and/or Terra Crossing Boulevard (southern boundary). Improvements to local roads would likely be required. Utilities would be extended to the facility from adjacent areas.

The VAMC would likely include five- and six-story hospital buildings constructed in the central or southern portions and adequate surface-level parking. Following the completion of the replacement VAMC, VA would move the current operations at the existing VAMC to this facility.

The Region of Influence (ROI) of the Proposed Action's two Alternative sites in and near the City of Louisville continues to grow and develop. The Brownsboro Site and the St. Joseph Site are located in suburban areas that are experiencing in-fill development to provide local residents with additional amenities and services.

No other recent or planned development activities in the vicinity of the Action Alternative sites are Federal actions and, thus, are not subject to NEPA. However, as required under applicable regulations, this PEA considers the impacts of the Action Alternatives, coupled with other proposed adjacent and nearby projects, as well as other past, present, and reasonably foreseeable future actions, in this ROI. This discussion is presented in the PEA's cumulative impact analysis (see Section 3.18).

Both of the Action Alternative sites effectively provide the sufficient combination of land, location, and proximity to related healthcare facilities in the Louisville area, and meet the purpose of and need for the Proposed Action. Both Action Alternatives are retained for further, detailed analysis within this PEA.

No Action Alternative

Under the No Action Alternative, the Proposed Action would not be implemented. VA would continue to operate its existing healthcare facilities at the VAMC on Zorn Avenue and the four other facilities located in the Louisville area to accommodate the healthcare needs of regional Veterans.

The Action Alternative sites likely would be developed for other uses by their current owners, in accordance with local zoning. The Brownsboro Site has already been approved for a mixed-used commercial and residential development and would likely be developed for those uses. The St. Joseph Site is included in an area where development for commercial and residential uses is currently ongoing and expected. As such, the St. Joseph Site would likely be developed for those uses.

This No Action alternative ultimately would limit the capability and capacity of VA to provide required healthcare services to regional Veterans, notably in western Kentucky and southern Indiana. VA would continue to provide services in inadequate facilities. The lack of a modern, larger VAMC would challenge VA's ability to safely, economically, and consistently provide high-quality, integrated healthcare services to the region's Veterans. While the No Action Alternative would not meet the purpose of or need for the Proposed Action, this alternative was retained to provide a comparative baseline analysis as required under CEQ Regulations.

2.3.4 Alternatives Eliminated From Further Consideration

As described in Sections 2.3.1 and 2.3.2, VA eliminated alternative sites through a rigorous screening process; the two Action Alternatives analyzed in this PEA meet all of VA's required

screening criteria. The other sites offered in response to VA's advertisement and the three sites eliminated as a result of the second round of screening did not meet VA's screening criteria as well as the Action Alternative sites. As such, these other alternatives were eliminated from further consideration.

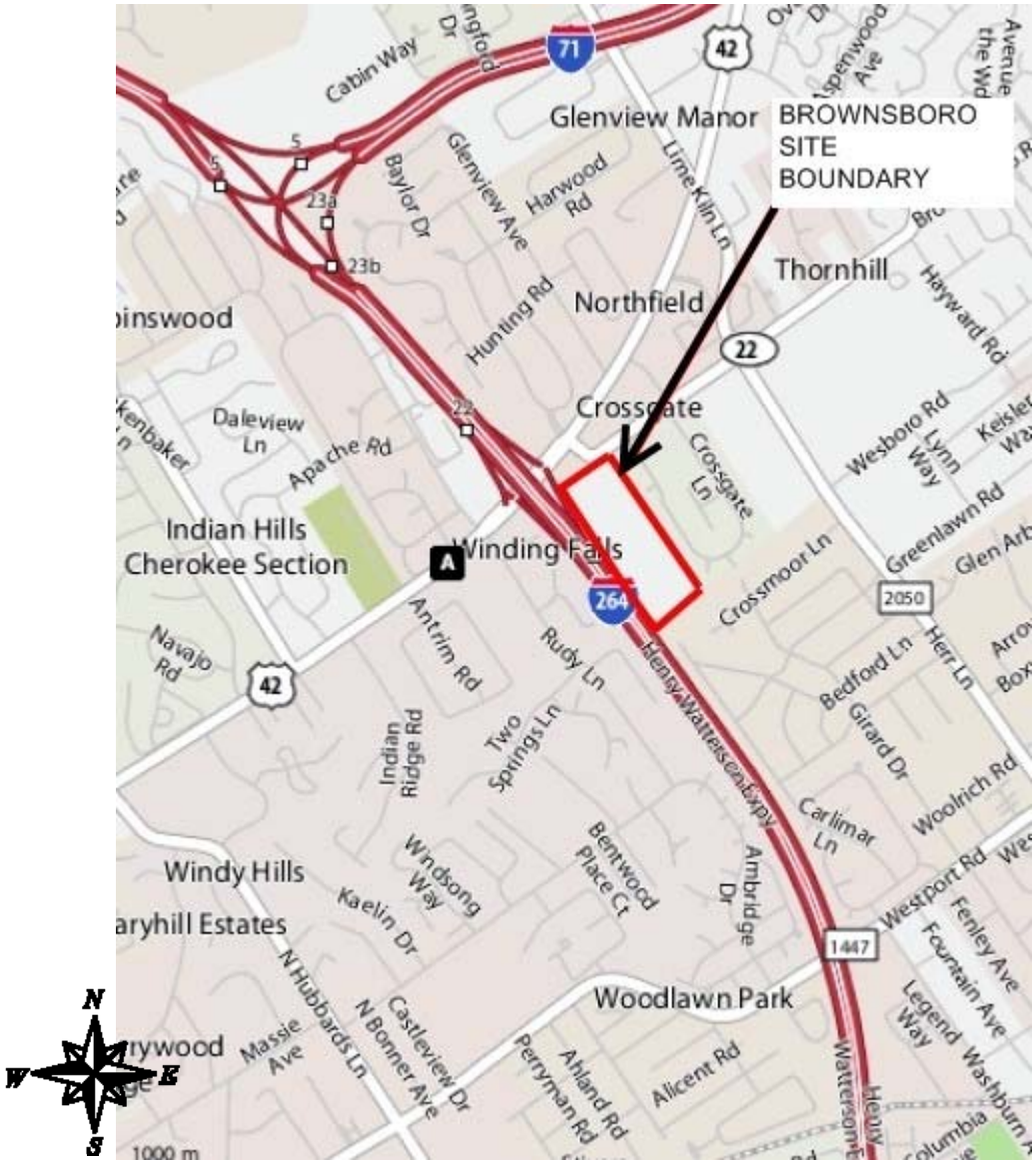

FIGURE 2
BROWNSBORO SITE
VICINITY MAP

PROGRAMMATIC ENVIRONMENTAL ASSESSMENT
PROPOSED VAMC
LOUISVILLE, KENTUCKY

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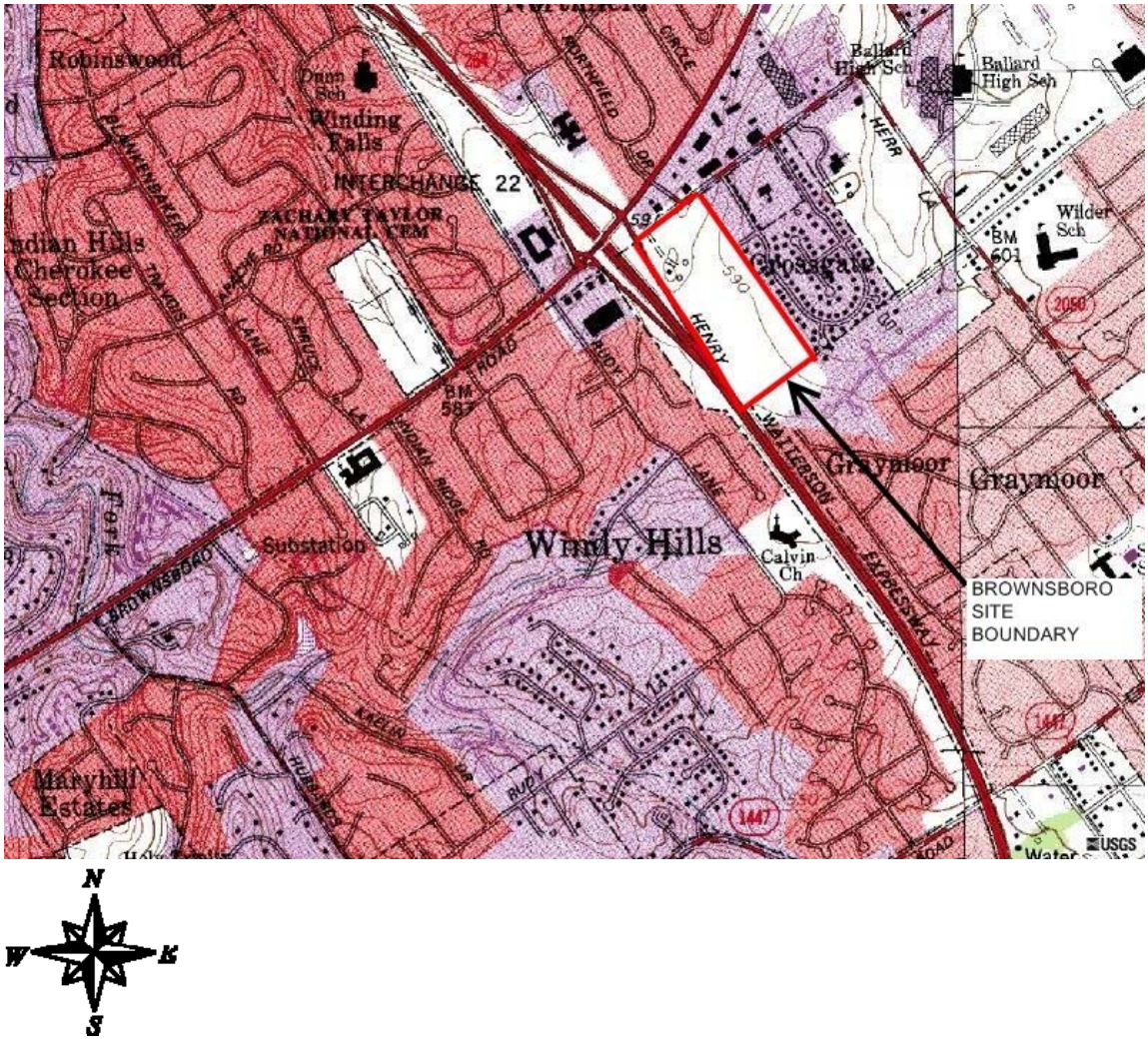

FIGURE 3
BROWNSBORO SITE
VICINITY TOPOGRAPHIC MAP

PROGRAMMATIC ENVIRONMENTAL ASSESSMENT
PROPOSED VAMC
LOUISVILLE, KENTUCKY

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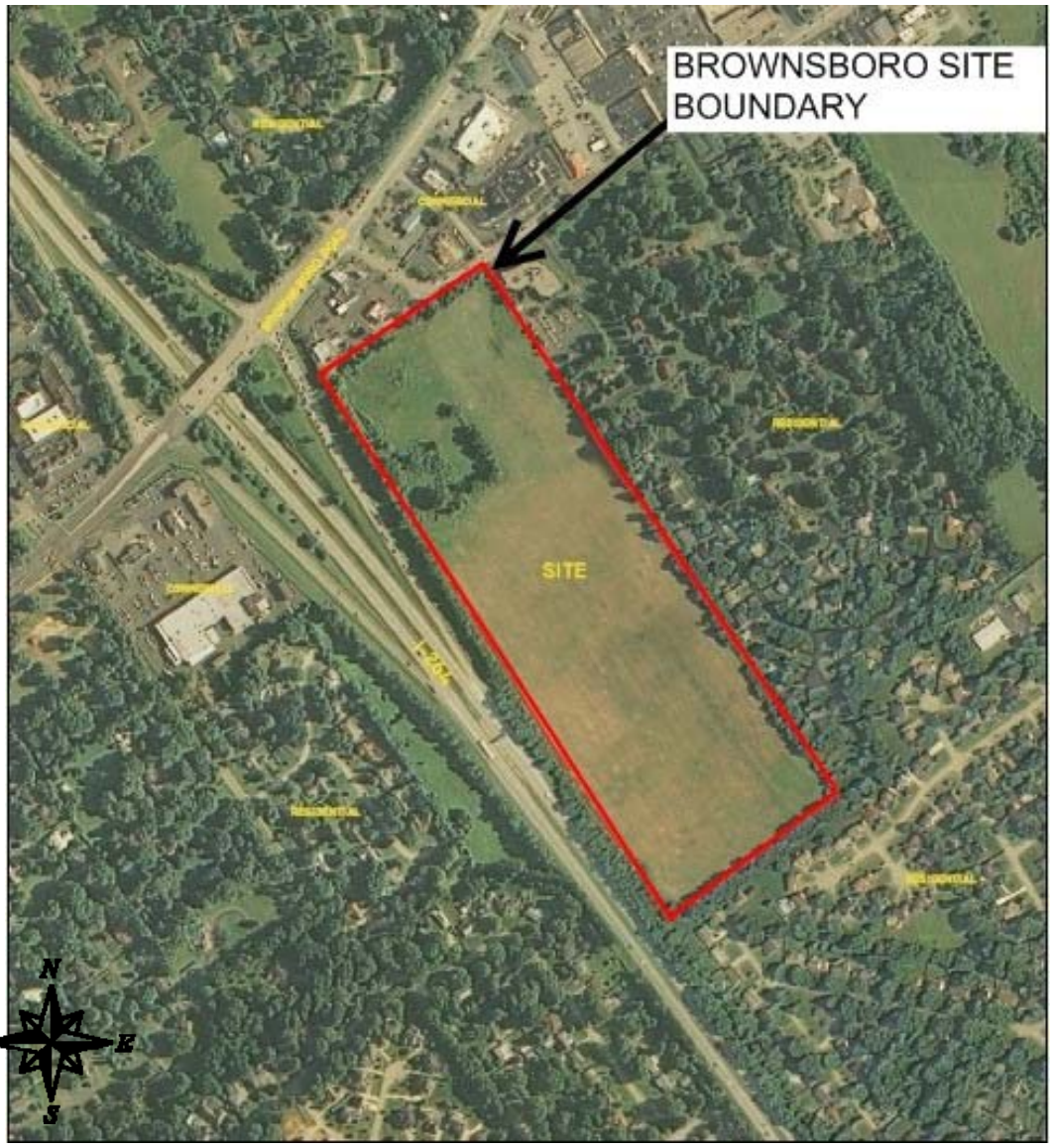

FIGURE 4
BROWNSBORO SITE
VICINITY AERIAL MAP
2010

PROGRAMMATIC ENVIRONMENTAL ASSESSMENT
PROPOSED VAMC
LOUISVILLE, KENTUCKY

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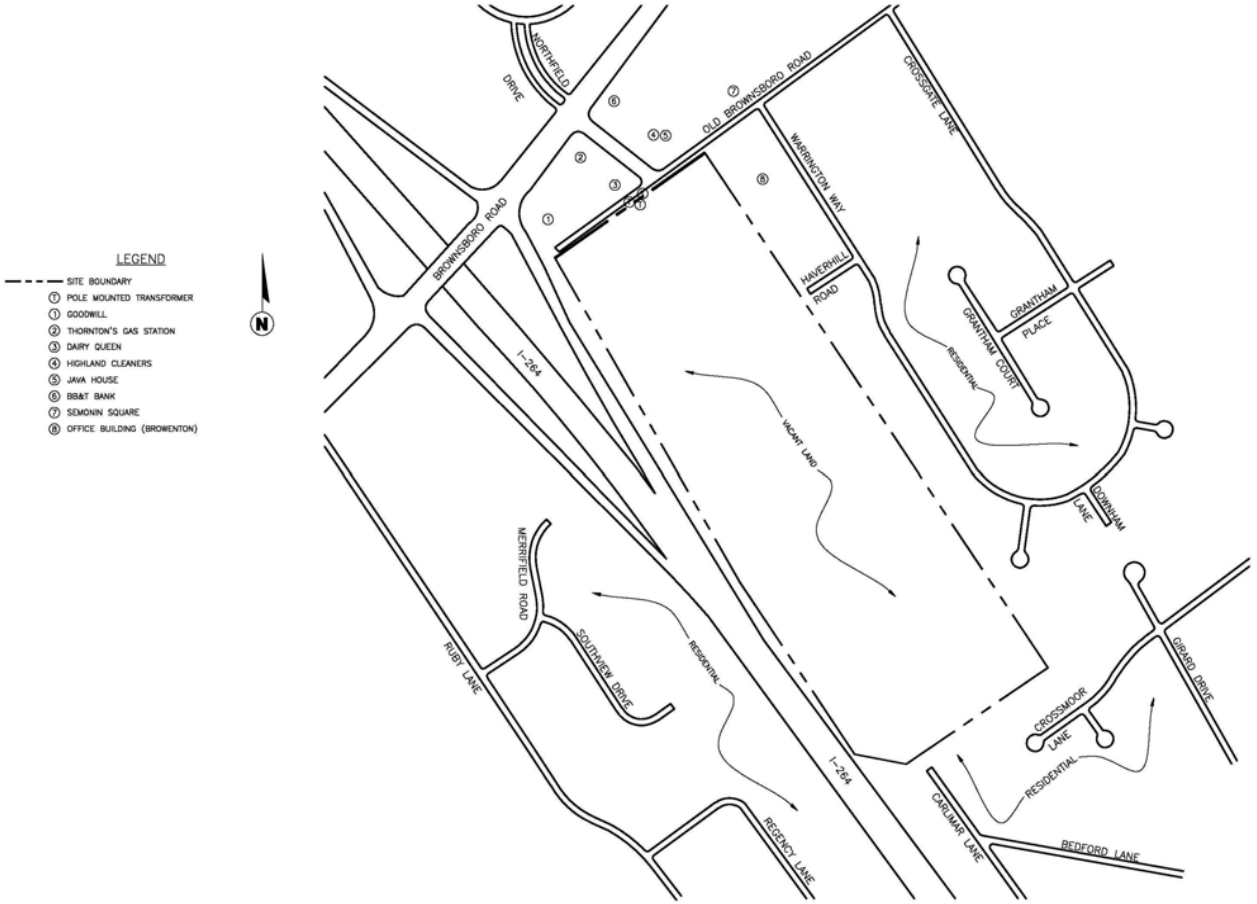

FIGURE 5
BROWNSBORO SITE
SITE SKETCH

PROGRAMMATIC ENVIRONMENTAL ASSESSMENT
PROPOSED VAMC
LOUISVILLE, KENTUCKY

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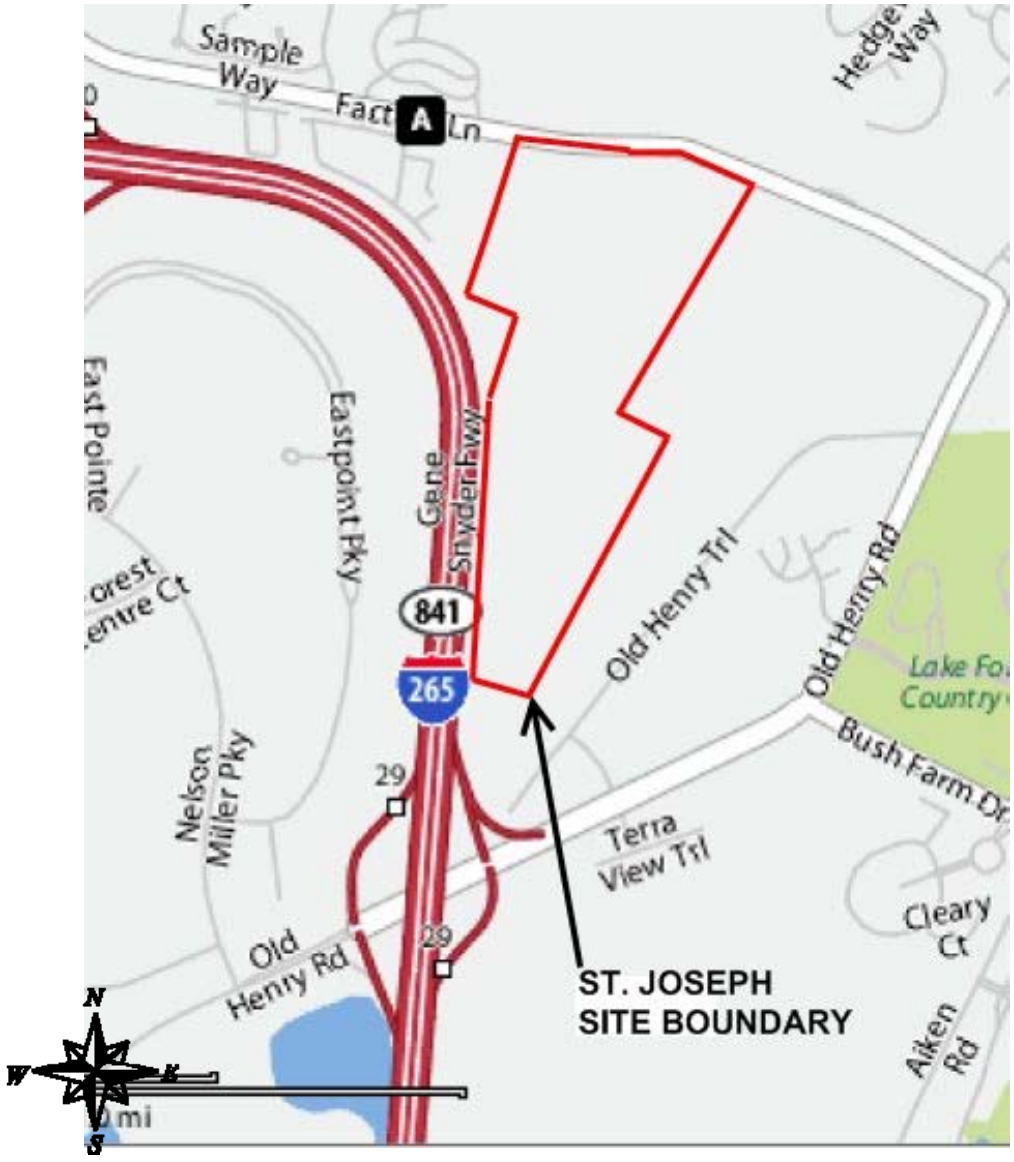

FIGURE 6
ST. JOSEPH SITE
VICINITY MAP

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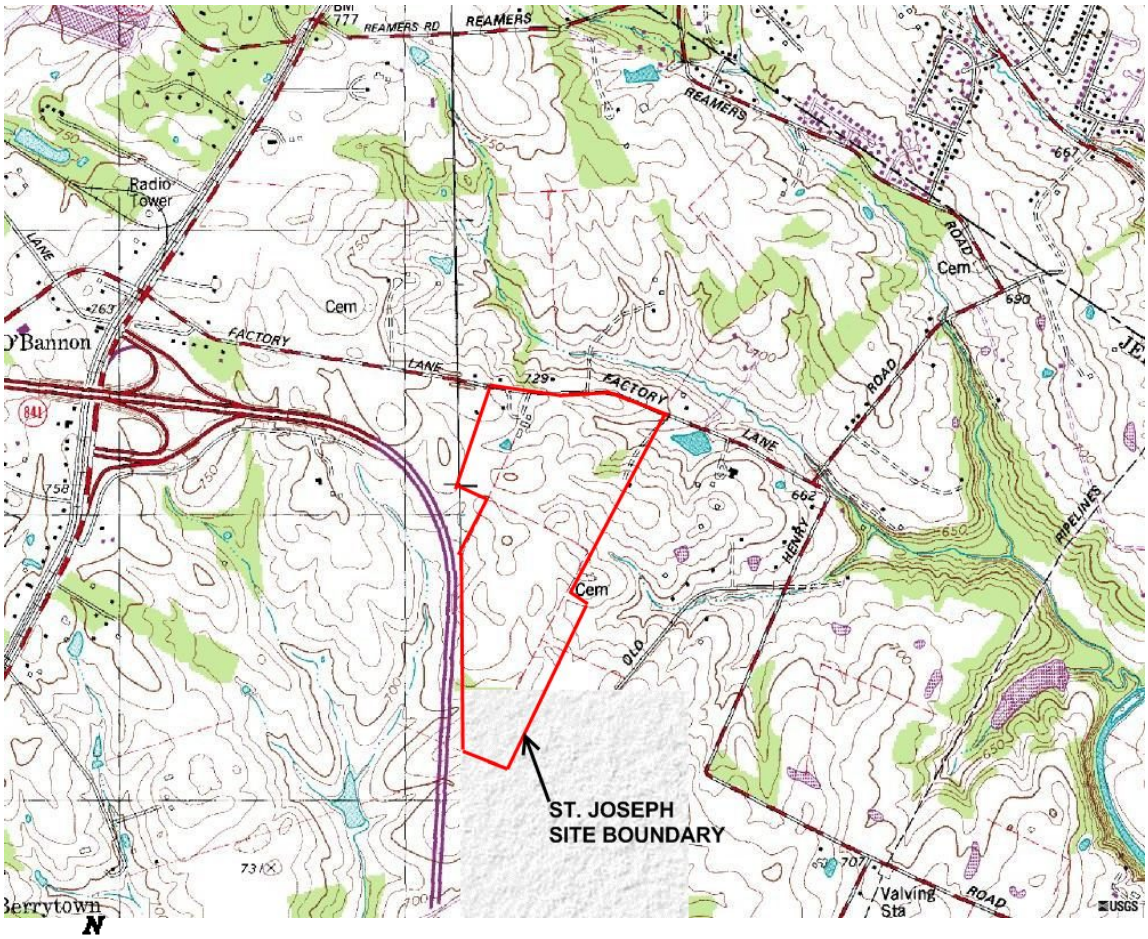

FIGURE 7
ST. JOSEPH SITE
VICINITY TOPOGRAPHIC MAP

PROGRAMMATIC ENVIRONMENTAL ASSESSMENT
PROPOSED VAMC
LOUISVILLE, KENTUCKY

PREPARED FOR

U.S. DEPARTMENT OF VETERANS AFFAIRS
WASHINGTON, D.C.

TTL PROJECT NO.
6960.03

FIGURE 8
ST. JOSEPH SITE
VICINITY AERIAL MAP
2010

PROGRAMMATIC ENVIRONMENTAL ASSESSMENT
PROPOSED VAMC
LOUISVILLE, KENTUCKY

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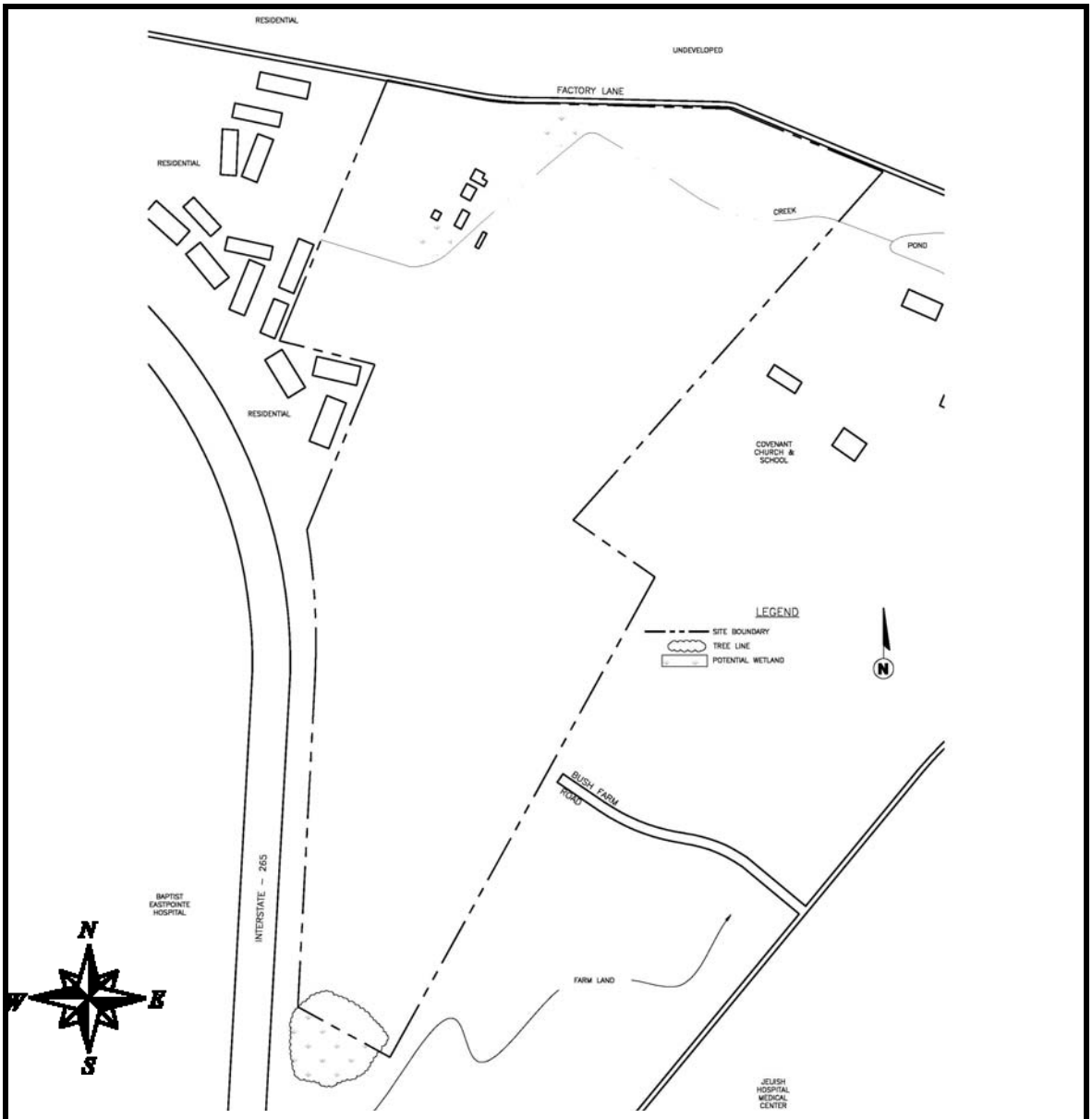

FIGURE 9
ST. JOSEPH SITE
SITE SKETCH

PROGRAMMATIC ENVIRONMENTAL ASSESSMENT
PROPOSED VAMC
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SECTION 3: AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 Introduction

This Section describes the baseline (existing) environmental, cultural, and socioeconomic conditions at the Action Alternative sites (Brownsboro and St. Joseph Sites) in Louisville, Kentucky (see Figures 1 through 9) and the general vicinity, with emphasis on those resources potentially affected by the Proposed Action at each site. Appendix B provides photographs, with captions, of each site and its surroundings. Under each resource area, the potential direct and indirect effects of implementing the Proposed Action at each of the Action Alternative sites and the No Action Alternative are identified. Cumulative effects are discussed in Section 3.17.

In this PEA, impacts are identified as either significant, less than significant (i.e., common impacts that would not be of the context or intensity to be considered significant under the NEPA or CEQ Regulations), or no impact. As used in this PEA, the terms "effects" and "impacts" are synonymous. Where appropriate and clearly discernible, each impact is identified as either adverse or positive.

The CEQ Regulations specify that in determining the significance of effects, consideration must be given to both "*context*" and "*intensity*" (40 CFR Part 1508.27):

- ***Context*** refers to the significance of an effect to society as a whole (human and national), to an affected region, to affected interests, or to just the locality. In other words, the context measures how far the effect would be "felt."

- ***Intensity*** refers to the magnitude or severity of the effect, whether it is beneficial or adverse. Intensity refers to the "punch strength" of the effect within the context involved.

In this PEA, the significance of potential direct, indirect, and cumulative effects has been determined through a systematic evaluation of each considered alternative in terms of its effects on each individual environmental resource component.

Significance criteria for resource areas considered in this PEA are as follows:

- *Aesthetics.* An alternative could significantly affect visual resources if it resulted in abrupt changes to the complexity of the landscape and skyline (i.e., in terms of vegetation, topography, or structures) when viewed from points readily accessible by the public.
- *Air quality.* An alternative could have a significant air quality effect if it would result in substantially higher air pollutant emissions or cause established air quality standards to be exceeded.
- *Cultural resources.* An alternative could have a significant effect on cultural resources if it would: result in damage, destruction, or demolition to an archaeological site or building that is eligible or listed on the National Register of Historic Places; promote neglect of such a resource, resulting in resource

deterioration or destruction; introduce audio or visual intrusion to such a resource; or decrease access to resources of value to federally recognized Native American tribes. Impact assessment for cultural resources focuses on properties that are listed in or considered eligible for the National Register of Historic Places or are National Historic Landmarks.

- *Geology and Soils.* If an alternative would result in an increased geologic hazard or a change in the availability of a geologic resource, it could have a significant effect. Such geologic and soil hazards would include, but not be limited to, seismic vibration, land subsidence, and slope instability.
- *Hydrology and Water Quality.* If an alternative would result in a reduction in the quantity or quality of water resources for existing or potential future use, it could have a significant effect. A significant effect could occur if the demand exceeded the capacity of the potable water system.
- *Wildlife and Habitat.* The effect of an alternative on biological resources and ecosystems could be significant if it would disrupt or remove any endangered or threatened species or its designated critical habitat. The loss of a substantial number of individuals of any plant or animal species (sensitive or non-sensitive species) that could affect the abundance or diversity of that species beyond normal variability could also be considered significant. The measurable degradation of sensitive habitats, particularly wetlands, could also be significant.
- *Noise.* An alternative could have a significant noise effect if it would generate new sources of substantial noise, increase the intensity or duration of noise levels to sensitive receptors, or result in exposure of more people to unacceptable levels of noise.
- *Land use.* If an alternative would conflict with adopted plans and goals of the affected community or if it would result in a substantial alteration to the present or planned land use of an area, it could have a significant direct effect. If an alternative would result in substantial new development or prevent such development elsewhere, it could have a significant indirect effect. In addition, an alternative could significantly affect visual resources if it resulted in abrupt changes to the complexity of the landscape and skyline (i.e., in terms of vegetation, topography, or structures) when viewed from points readily accessible by the public.
- *Floodplains, Wetlands, and Coastal Zone Management.* An alternative could have a significant effect on water resources if it would cause substantial flooding or erosion, if it would subject people or property to flooding or erosion, or if it would adversely affect a significant water body, such as a stream or lake.
- *Socioeconomics.* If an alternative would substantially alter the location and distribution of the population within the geographic ROI, cause the population to exceed historical growth rates, or substantially affect the local housing market and vacancy rates, the effect would be significant. Significant effects could occur if an alternative caused disproportionate risks to children that resulted from environmental health risks or safety risks. In addition, an alternative could have a significant effect if it would create a need for new or increased fire or police protection, or medical services, beyond the current capability of the local community, or would decrease public service capacities so as to jeopardize public safety. *It is important to note that, per CEQ Regulations (40 CFR 1508.14), social or economic effects are not intended by themselves to require preparation of an EIS.* Only when social or economic effects are interrelated with natural or physical environmental effects would all of these effects be analyzed as part of the NEPA process.
- *Community Services.* An alternative could have a significant effect on infrastructure if it would increase demand over capacity, requiring a substantial system expansion

or upgrade, or if it would result in substantial system deterioration over the current condition.

- *Solid and Hazardous Materials.* An alternative could have a significant effect if it would result in a substantial increase in the generation of hazardous substances, increase the exposure of persons to hazardous or toxic substances, increase the presence of hazardous or toxic materials in the environment, or place substantial restrictions on property use due to hazardous waste, materials, or site remediation. Data provided in the site-specific environmental site assessments (ESAs) and other prior studies helps to identify these potential impacts, as well as their significance.
- *Transportation and Parking.* An alternative could have a significant effect on infrastructure if it would increase demand over capacity, requiring a substantial system expansion or upgrade, or if it would result in substantial system deterioration over the current condition. For instance, an alternative could have a significant effect on traffic if it would increase the volume of traffic beyond the existing road capacity, cause parking availability to fall below minimum local standards, or require new or substantially improved roadways or traffic control systems.
- *Utilities.* An alternative could have a significant effect on infrastructure if it would increase demand over capacity, requiring a substantial system expansion or upgrade, or if it would result in substantial system deterioration over the current condition.
- *Environmental justice.* Significant effects could occur if an alternative would disproportionately affect minority or low-income populations.

3.2 Aesthetics

Preferred Action Alternative

The Brownsboro Site is located in a suburban area southeast of the intersection of Brownsboro Road (US 42) and the Watterson Expressway (I-264) and includes approximately 36 acres of unimproved, former agricultural land. This Site is located approximately 3.5 miles east of the existing Louisville VAMC and approximately 7 miles east of the center of the City of Louisville, Kentucky (see Figure 1).

The area adjacent to the northern boundary of the site across Old Brownsboro Road is currently occupied by Goodwill, Thornton's gasoline station and car wash, Dairy Queen, Java House coffee house, Highland Cleaners, and BB&T Bank. The area adjacent to the eastern boundary of the Brownsboro Site is occupied by the Browenton office building and a residential neighborhood. The area adjacent to the southern boundary of the Brownsboro Site is occupied by a residential neighborhood. The area adjacent to the western boundary of the Brownsboro Site is occupied by the I-264 Expressway. The surrounding land uses are depicted on Figure 5.

Old Brownsboro Road, along the northern boundary of the Brownsboro Site, has been designated by the City of Louisville as a Scenic Corridor. The City of Louisville maintains a Scenic Corridor ordinance through LDC Chapter 10, Part 3, *Parkway and Scenic Corridor Development Standards*. The ordinance provides for the designation of Parkways, Olmsted Parkways, Scenic Corridors, and the Gene Snyder Freeway. The ordinance also provides for the creation of development standards applicable to developments adjacent to those corridors. The ordinance is intended to protect existing scenic and aesthetic qualities, to ensure a quality visual experience on developing corridors, and to protect and improve the visual experience on established corridors. Any development that requires vegetation to be planted and maintained to meet the requirements of the ordinance must have a landscape plan.

Alternate Action Alternative

The St. Joseph Site is located in a suburban area east of Gene Snyder Freeway (I-265) and south of Factory Lane. This site includes approximately 99 acres of mostly unimproved, agricultural land. This site is located approximately 10.8 miles east of the existing Louisville VAMC and approximately 14 miles east of the center of Louisville, Kentucky.

The area adjacent to the northern boundary of the St. Joseph Site, across Factory Lane, is currently occupied by undeveloped land and scattered residential structures. The area adjacent to the eastern boundary of the St. Joseph Site is occupied by pasture land and the Covenant Church and School. The area adjacent to the southern boundary is occupied by unimproved land, residential neighborhoods, and the Jewish Hospital Medical Center. The area adjacent to the western boundary of the St. Joseph Site is currently occupied by residential properties and, across I-265, by Baptist Eastpointe Hospital. The surrounding land uses are depicted on Figure 9.

3.2.1 Effects of the Action Alternatives

Acquisition of any site by VA would produce no direct aesthetics effects. However, future development of a new VAMC at either of the Action Alternative sites would likely have less-than-significant adverse impacts to aesthetics, as discussed below.

Preferred Action Alternative

Future development of a new VAMC at the Brownsboro Site may result in long-term, negative aesthetic effects to the surrounding area, specifically impacting the residential neighborhoods adjacent to the east and south. These areas currently overlook an unimproved green space. The new VAMC would be an attractive facility designed and constructed in a way that is visually consistent with the surrounding areas; however, existing green space would be eliminated and surrounding views from the east and south would be limited by VAMC structures. In addition, associated security lighting would likely increase nighttime ambient light levels in the areas immediately adjacent to the VAMC, impacting the adjacent residential neighborhoods.

The current owners of the Brownsboro Site have communicated to the surrounding residential landowners of their intent to develop the Brownsboro Site as a mixed-use development, with a mixture of commercial and residential buildings, including a six-story hotel. This process included five design charette workshops and public meetings. The primary concern expressed by area residents related to traffic (see Section 3.14). Ultimately, the proposed plans were approved and the site was rezoned as Planned Development (PD) in anticipation of the proposed mixed-use development.

The current zoning designation for the Brownsboro Site, Planned District Development (PD), is designed to promote diversity and integration of uses and structures in a planned development through flexible design standards. The VAMC development would be generally consistent with local zoning. VA would work with the City of Louisville during the design of the VAMC to features set forth in the Louisville Metro Development Code, to the extent practical, so that the proposed new VAMC would be designed and constructed consistent with other area developments, as detailed in Section 3.9. These measures would be fully developed as part of the subsequent SEA, concurrent with the site design efforts.

In addition, a reconfiguration of the Brownsboro Road and I-264 interchange has been approved and would be completed by 2020 or earlier. The reconfiguration of this interchange would likely alter the aesthetics of the vicinity of the Brownsboro Site, resulting in a more commercialized appearance of the ROI.

Alternate Action Alternative

Future development of a new VAMC at the St. Joseph Site may result in long-term, direct, negative aesthetic effects within the surrounding area, specifically impacting the residential properties adjacent to the north and west, and the church and school adjacent to the east. These areas currently overlook unimproved green space. The new VAMC would be an attractive facility, designed and constructed in a way that is visually consistent with the surrounding areas (which includes two other hospitals); however, the green space would be eliminated and surrounding views from the east and west would be limited by VAMC structures. In addition, associated security lighting would likely increase nighttime ambient light levels in the areas immediately adjacent to the new VAMC, impacting residential properties adjacent to the west. VA anticipates that through environmentally sensitive site design and following good engineering practices, as well as consultation with pertinent local regulatory agencies, potential aesthetic impacts would be managed to less-than-significant levels. These measures would be fully developed as part of the subsequent, site-specific SEA, concurrent with the site design efforts.

3.2.2 Effects of the No Action Alternative

Under the No Action Alternative, no aesthetics effects would result from the Proposed Action. Should either of the Action Alternative sites ultimately be developed for use by others, aesthetics impacts would likely result from the change in land use.

3.2.3 Mitigation / Management Measures

No project-specific mitigation measures are required. Aesthetic impacts in general, and potential visual and lighting impacts specifically, would be maintained at less-than-significant levels through project planning and development in accordance with the City of Louisville *Generally Applicable Development Standards* (see below). VA would manage aesthetic impacts through environmentally sensitive site design and good engineering practices. These measures would be fully developed as part of the subsequent site-specific SEA, concurrent with design efforts.

Preferred Action Alternative

The Brownsboro Site is located along a designated Scenic Corridor. VA would prepare a landscape plan and would work with the City of Louisville to meet the requirements of the *Parkway and Scenic Corridor Development Standards Ordinance*, to the extent practical.

The VAMC would be developed generally consistent with local zoning. VA would work with the City of Louisville to integrate design features, to the extent practical, so that the proposed new VAMC would be designed and constructed consistent with other area developments. It is anticipated that measures such as berms and landscaping, and sensitive design, will be included in the site design and will maintain potential aesthetics impacts at less-than-significant levels. These measures would be fully developed as part of the subsequent, site-specific SEA, concurrent with the site design efforts.

Alternate Action Alternative

No site-specific management measures are required for aesthetic effects.

Both Action Alternatives

The City of Louisville maintains aesthetics through the LDC, Chapter 4, Appendices 4A-4D, *Generally Applicable Development Standards*. The standards describe the acceptable output

levels of lighting associated with development projects. Louisville LDC Chapter 4, Appendices 4A-4D details the acceptable types lighting and levels of illumination that are acceptable. VA would work with the City of Louisville to satisfy the requirements of the LDC, Chapter 4, Appendices 4A-4D, *Generally Applicable Development Standards*.

No other project-specific management measures are required.

3.3 Air Quality

3.3.1 Regulatory Background

Ambient Air Quality

The ambient air quality in an area can be characterized in terms of whether or not it complies with the primary and secondary National Ambient Air Quality Standards (NAAQS). The Clean Air Act (CAA) and Clean Air Act Amendments (CAAA) requires the USEPA to set NAAQS for pollutants considered harmful to public health and the environment. NAAQS are provided for the following principal pollutants, called "criteria pollutants" (as listed under Section 108 of the CAA):

- Carbon monoxide (CO)
- Lead (Pb)
- Nitrogen oxides (NO_x)
- Ozone (O_3)
- Particulate matter (PM), divided into two size classes:

  Aerodynamic size less than or equal to 10 micrometers (PM_{10})

  Aerodynamic size less than or equal to 2.5 micrometers ($PM_{2.5}$)
- Sulfur dioxide (SO_2)

Areas are designated by the USEPA as "attainment", "non-attainment", "maintenance", or "unclassified" with respect to the NAAQS. Regions in compliance with the standards are designated as "attainment" areas. In areas where the applicable NAAQS are not being met, a "non-attainment" status is designated. Areas that have been classified as "non-attainment" but are now in compliance can be re-designated "maintenance" status if the state completes an air quality planning process for the area. Areas for which no monitoring data is available are designated as "unclassified", and are by default considered to be in attainment of the NAAQS.

According to 2007 information from the Kentucky Transportation Cabinet (KTC), Division of Planning, Jefferson County is currently designated as an 8-Hour Ozone Maintenance Area and a Fine Particulate Matter ($PM_{2.5}$) Nonattainment Area (KTC 2011).

In addition, gases that trap heat in the atmosphere are often called greenhouse gases. Some greenhouse gases, such as carbon dioxide occur naturally and are emitted to the atmosphere through natural processes and human activities. Other greenhouse gases (e.g., fluorinated gases) are created and emitted solely through human activities. The principal greenhouse gases that enter the atmosphere because of human activities are:

- Carbon dioxide (CO_2)
- Methane (CH_4)
- Nitrous oxide (N_2O)

- Fluorinated gases (e.g., hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride)

Gases in the atmosphere can contribute to the greenhouse effect both directly and indirectly. Direct effects occur when the gas itself absorbs radiation. Indirect radiative forcing occurs when chemical transformations of the substance produce other greenhouse gases, when a gas influences the atmospheric lifetimes of other gases, and/or when a gas affects atmospheric processes that alter the radiative balance of the earth. Other than USEPA requirements for Mandatory Reporting of Greenhouse Gases Rule (74 FR 56260), which requires reporting of greenhouse gas data and other relevant information from large sources and suppliers in the United States, no regulatory guidelines are in place. The purpose of the rule is to collect accurate and timely GHG data to inform future policy decisions. No significant human sources of greenhouse gases are located at the Action Alternative sites.

Operating Permits

The CAA regulates criteria pollutants as well as 188 specifically listed hazardous air pollutants (HAPs). The Title V Operating Permit Program under 40 CFR 70 requires sources that meet the definition of a "major source" of criteria pollutants or HAPs to apply for and obtain a Title V operating permit. A major source of HAPs has the potential to emit (PTE) more than 10 tons per year (tpy) of any individual HAP, or 25 tpy of any combination of HAPs. The definition of major source for criteria pollutants is dependent on the air quality attainment status of the region where the source is located (i.e., areas that are in attainment or non-attainment with the NAAQS). Major sources have a PTE more than 100 tpy of any criteria pollutant in an attainment area or lower levels in various classifications of non-attainment (i.e., marginal, moderate, serious, severe, and extreme).

Given current land use at the Action Alternative sites, no sources of regulated air emissions exist (e.g., from boilers, generators, or other minor equipment).

State and Local Regulations

The Kentucky Department of Environmental Protection (KDEP), Division for Air Quality (DAQ), coordinates State-wide air compliance and enforcement activities through the Kentucky Administrative Regulations (KAR), Chapters 50, 51, 52, 53, 55, 57, 58, 59, 60, 61, 63, 65, and 68. The DAQ promotes air compliance through the department's district offices and the approved local program offices. DAQ oversees air compliance and enforcement data management and provides required data to the USEPA. Responsibilities also include the coordination of air enforcement throughout the State and conducting special projects in air compliance assurance (ACA).

The City of Louisville Metro Air Pollution Control District (APCD) coordinates Jefferson County air compliance and enforcement activities under the authority of Kentucky Revised Statutes (KRS), Chapter 77. The APCD oversees air compliance and enforcement data management and provides required data to the DAQ and USEPA. Responsibilities also include the coordination of air enforcement in Jefferson County and conducting special projects in ACA.

In addition, the City of Louisville maintains a Traffic and Air Quality Assessment ordinance. This ordinance requires that applicants shall be required to file a traffic impact study or air quality analysis or both, if the Director of Works or the Director of the APCD determines that the development meets the conditions and thresholds established in the current version of the "Guidelines for Traffic Impact Studies and Air Quality Analysis in Jefferson County, Kentucky" or successor document as approved by the Planning Commission. The content and

methodology of the traffic impact study and air quality analysis shall be in accordance with the guidelines or successor document.

Jefferson County's air quality monitoring network is operated by the APCD. The air is monitored for carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter, and sulfur dioxide. The monitors tend to be concentrated in areas with the largest population densities. Not all pollutants are monitored in all areas. The information collected by the APCD is distributed to the DAQ and USEPA.

In addition, a Kentucky State-wide air quality monitoring network is operated by the DAQ. The air is monitored for carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter, and sulfur dioxide. The monitors tend to be concentrated in areas with the largest population densities. Not all pollutants are monitored in all areas. The information collected by the DAQ is distributed to the APCD and USEPA.

Conformity with State Implementation Plans

The General Conformity Provision of the CAA of 1970 (42 USC 7401 *et seq.*; 40 CFR Parts 50-87) Section 176(c), including the USEPA's implementation mechanism, the General Conformity Rule (40 CFR Part 51, Subpart W), prohibits the Federal government from conducting, supporting, or approving any actions that do not conform to a USEPA-approved State Implementation Plan (SIP). A SIP is a state's self-authored blueprint for achieving and maintaining compliance with the goals of the CAA. Federal agencies prepare written Conformity Determinations for Federal actions in or affecting NAAQS non-attainment areas or maintenance areas when the total direct and indirect emissions of non-attainment pollutants (or their precursors) exceed specified thresholds. Conformity with the SIP is demonstrated if project emissions fall below threshold values.

According to 2007 information from the KTC, Jefferson County is currently designated as an 8-Hour Ozone Maintenance Area and a Fine Particulate Matter ($PM_{2.5}$) Nonattainment Area (KTC 2011).

The KDEP DAQ did not identify any additional concerns associated with air quality in the vicinity of the Action Alternative sites as part of this NEPA process.

3.3.2 Sensitive Receptors

Preferred Action Alternative

Sensitive air quality receptors in the vicinity of the Brownsboro Site include the southern and eastern adjacent residential land uses; the majority of the surrounding area includes residential neighborhoods. Ballard High School, Kammerer Middle School, Wilder Elementary School, and Herr Lane Kinder Care are located approximately 0.35-mile northeast and east of the Brownsboro Site. Albert the Great Catholic School is located approximately 0.50-mile southeast of the Brownsboro Site. There are no hospitals located within 0.5 mile of the Brownsboro Site. No other sensitive air quality receptors were identified.

Alternate Action Alternative

Sensitive air quality receptors in the vicinity of the St. Joseph Site include local residential land uses located adjacent to the west. In addition, Covenant Church and School is located adjacent to the east of the St. Joseph Site. Two hospitals are located within 0.5 mile of the St. Joseph Site, including Jewish Hospital Medical Center located approximately 0.13 mile southeast and Baptist Healthcare System located across I-265 to the west. No other sensitive air quality receptors were identified.

3.3.3 Effects of the Action Alternatives

Acquisition of either of the Action Alternative sites by the VA would produce no direct air quality effects. However, future development of a new VAMC at either site would likely have less-than-significant adverse air quality effects.

The KDEP DAQ stated that the Proposed Action would be required to comply with DAQ Regulations 401 KAR 63:010 (Fugitive Emissions), 401 KAR 63:005 (Prohibition of Open Burning), and 401 KAR 58:025 (Asbestos Standards). The DAQ also recommended that local government regulations should be evaluated as part of the Proposed Action. No other comments were provided by the DAQ.

Air emissions generated would have less-than-significant, direct and indirect, short- and long-term adverse impacts to the existing air quality environment around each site. Impacts would include short-term and long-term increased air emission levels as a result of: 1) Construction activities; and 2) Operation of the proposed VAMC and onsite activities.

Construction activities would be performed in accordance with Federal, State, and local air quality requirements. Construction-related emissions are generally short-term, but may still have adverse impacts on air quality, primarily due to the production of dust. Dust can result from a variety of activities, including building demolition, excavation, grading, and vehicle travel on paved and unpaved surfaces. Dust from demolition and construction can lead to adverse health effects and nuisance concerns, such as reduced visibility on nearby roadways. Implementing dust control measures (BMPs) significantly reduces dust emissions from demolition and construction. The amount of dust is dependent on the intensity of the activity, soil type and conditions, wind speed, and dust suppression activities used. Implementation of BMPs, discussed below, would further minimize these anticipated less-than-significant adverse, short-term impacts.

Over the long-term, either of the Action Alternatives would result in site visits by Veterans and staff, including additional vehicle miles traveled to and from the new VAMC. However, as the new VAMC would be full-service (inpatient and outpatient) and Veterans would not need to travel to other facilities to receive healthcare services, the Proposed Action would result in a slight long-term decrease in local and regional vehicle miles (and associated emissions) due to the proximity and accessibility of the new VAMC.

In addition, a Title V operating permit may be required for the proposed boiler equipment, as it is anticipated that this equipment may to emit more than 10 tpy of an individual HAP, 25 tpy of combined HAPs, or 100 tpy of criteria pollutants. VA would secure any required air emissions permits from the DAQ and the APCD, as appropriate and based on the final design, including conducting a full conformity analysis for installing a major pollutant emissions source in a nonattainment area. The APCD is responsible for conducting inspections of industrial air pollution sources, auditing of annual performance tests, investigating industry-related complaints, and other oversight activities related to stationary sources (APCD 2011).

Through environmentally sensitive site design and following good engineering practices, as well as consultation with pertinent Federal regulatory agencies, air quality impacts would be managed to less-than-significant levels. In general, the new VAMC would include modern equipment which is more efficient and would reduce emissions in comparison with the existing VAMC. These measures would be fully developed as part of the subsequent, site-specific SEA, concurrent with the site design efforts.

3.3.4 Effects of the No Action Alternative

Under the No Action Alternative, no air quality effects from the Proposed Action would occur. Should either of the Action Alternative sites ultimately be developed for use by others, potential air quality effects could result, depending upon the future use. In addition, the additional driving required by area Veterans to receive care at other locations in western Kentucky and southern Indiana would contribute to increased regional air quality emissions and traffic congestion, would be a less-than-significant, long-term, adverse impact under the No Action Alternative.

3.3.5 Mitigation / Management Measures

Preferred Action Alternative

The PWA indicated that the Proposed Action could create air quality issues at the Brownsboro Site. According to the PWA, the KY 22/Brownsboro Road/I-264 interchange is congested as it exists today, which has created an air quality concern. The PWA stated that any further development in this area would require improvements to the highway infrastructure as part of getting encroachment permits and other approvals. These improvements would involve improvements to the KY 22/Brownsboro Road/I-264 interchange, which are now scheduled to be completed by KTC by 2020 or earlier. These interchange improvements by KTC, anticipated to occur well before the VAMC would be constructed, would proactively improve traffic flow, reduce local air quality emissions, and effectively mitigate the adverse air quality effects identified by the PWA. Traffic impacts are discussed in Section 3.14.

Alternate Action Alternative

No project-specific mitigation measures are required.

Both Action Alternatives

VA would implement BMPs to reduce fugitive dust emissions during construction would further minimize the potential impacts on air quality. To minimize the potential for adverse, short-term air quality impacts, VA would implement the following typical dust control BMPs, as applicable, and in accordance with State and local requirements:

- Comply with the KDEP DAQ regulations 401 KAR 63:010 (Fugitive Emissions) and 401 KAR 63:005 (Prohibition of Open Burning).
- Comply with Federal requirements pertaining to greenhouse gases and implement a site design that minimizes greenhouse gas emissions.
- Consult with the APCD and PWA as part of the planning process for the proposed VAMC.
- Obtain all necessary permits from the City of Louisville APCD and PWA.
- Conduct a full conformity analysis for installing a major pollutant emissions source in a nonattainment area.
- Use appropriate dust suppression methods during onsite demolition/construction activities. Available methods include application of water, dust palliative, or soil stabilizers; use of enclosures, covers, silt fences, or wheel washers; and suspension of demolition and earth-moving activities during high wind conditions.
- Maintain an appropriate speed to minimize dust generated by vehicles and equipment on unpaved surfaces.

- Cover haul trucks with tarps.
- Stabilize previously disturbed areas through re-vegetation or mulching if the area would be inactive for several weeks or longer.
- Visually monitor all demolition and construction activities regularly, particularly during extended periods of dry weather, and implement dust control measures when appropriate.

These dust-reducing BMPs would be briefed to the construction contractors. The onsite construction manager would be responsible for addressing air quality issues if they arise. Implementation of these BMPs would reduce the potential for short-term adverse air quality impacts to acceptable levels, notably for nearby sensitive receptors. Specific air quality management measures will be detailed in the future SEA.

A Title V operating permit may be required for the proposed VAMC boiler equipment. VA would conduct a conformity analysis and secure any required air emissions permits from the DAQ and the APCD, as appropriate and based on the final design of the new VAMC.

3.4 Cultural Resources

Cultural resources are the physical evidence of our heritage. Cultural resources are: historic properties as defined in the National Historic Preservation Act (NHPA), cultural items as defined in the Native American Graves Protection and Repatriation Act (NAGPRA), archeological resources as defined in the Archaeological Resources Protection Act (ARPA), sacred sites as defined in EO 13007 to which access is provided under the American Indian Religious Freedom Act (AIRFA), and collections as defined in 36 CFR 79, *Curation of Federally Owned and Administered Collections*. Requirements set forth in NEPA, NHPA, ARPA, NAGPRA, AIRFA, 36 CFR 79, EO 13007, and Presidential Memorandum on *Government-to-Government Relations with Native American Tribal Governments* define the basis of VA's compliance responsibilities for management of cultural resources. Regulations applicable to VA's management of cultural resources include those promulgated by the Advisory Council on Historic Preservation (ACHP) and the National Park Service (NPS).

3.4.1 Architectural and Archaeological Resources

In a response to a scoping request as part of this NEPA process, the Kentucky Historical Society (State Historic Preservation Office or SHPO) stated in a letter dated April 25, 2011 that both Action Alternative sites include the potential for prehistoric and/or historic resources that could be adversely affected by the Proposed Action, and recommended that a records review be completed to evaluate both Sites and surrounding areas for archeological resources and structures that are greater than 50 years of age (see Appendix A). VA retained RC Goodwin and Associates, Inc. (RC Goodwin) to conduct a records review and Phase I Archeological Inventory (AI) survey of both sites, the results of which are described below. RC Goodwin's reports are provided in Appendix C.

Preferred Action Alternative

RC Goodwin indicated that no historic districts or eligible structures are located on the Brownsboro Site. The site included a previously historic structure, but it is no longer present and its eligibility is undetermined. RC Goodwin also noted that the Zachary Taylor National Historic Landmark and National Cemetery. Located approximately one-half mile west of the

Site, and several individually listed National Register of Historic Places (NRHP) properties (1,000 feet or more from the Site), are potentially located in the area of potential effect (APE) for the Brownsboro Site. RC Goodwin indicated that no archeological remains had been documented at the Brownsboro Site, but no surveys of the Site had been conducted and it was possible that intact archeological sites were present.

RC Goodwin's Draft AI for the Brownsboro Site is documented in a report dated March 2012. The AI archeological survey consisted of a combination of controlled interval (grid), judgmental subsurface testing, and a site reconnaissance to identify possible archeological sites at the Brownsboro Site, and to assess their significance to the National Register for Historic Places Criteria for Evaluation (36 CFR 60.4).

The survey identified one archeological site (newly documented Site 15JF809) in the northwest portion of the Brownsboro Site. RC Goodwin stated that approximately 30 artifacts were found, including 28 historic (early 1900s) and 2 prehistoric [early Archaic period (7,500 to 6,900 years before present) Kirk Corner notched projectile point]. RC Goodwin concluded that this archeological site does not possess the qualities of significance defined by the National Register Criteria for Evaluation and does not present research potential. As such, RC Goodwin concluded that the Brownsboro Site does not contain cultural resources listed, or eligible for listing, in the NRHP and recommended no further investigations.

Concurrent with the Draft PEA, VA submitted the Draft AI for the Brownsboro Site to the Kentucky SHPO for review and concurrence. The SHPO reviewed the AI and indicated that it concurred with its findings and recommendations. However the SHPO noted that this occurrence only applies to archeological resources. The SHPO stated that additional analyses would be required to evaluate direct and indirect impacts to above ground cultural resources within the APE of the Brownsboro Site to fulfill VA's Section 106 requirements.

Alternate Action Alternative

RC Goodwin indicated that no historic districts or eligible structure were identified within the St. Joseph Site boundaries. RC Goodwin noted that the Altawood Historic District and/or Ash Avenue Historic District, both listed on the NRHP and located approximately 1 to 1.5 miles north of the St. Joseph Site may be within the visual impact area of the Alternate Action Alternative. RC Goodwin indicated no archeological remains had been documented at the St. Joseph Site, but no surveys of the Site had been conducted and it was possible that intact archeological sites were present.

RC Goodwin completed an AI for the St. Joseph Site. The AI archeological survey consisted of a combination of controlled interval (grid), judgmental subsurface testing, and a site reconnaissance to identify possible archeological sites at the Brownsboro Site, and to assess their significance to the National Register for Historic Places Criteria for Evaluation (36 CFR 60.4).

The survey identified two cultural resources at the St. Joseph Site: one cultural resource locus (which does not qualify as an archeological site) and one archeological site. RC Goodwin concluded that these cultural resources do not possess the qualities of significance defined by the National Register Criteria for Evaluation and does not present research potential. As such, RC Goodwin concluded that the St. Joseph Site does not contain cultural resources listed, or eligible for listing, in the NRHP and recommended no further investigations.

VA submitted the Draft AI for the St. Joseph Site to the Kentucky SHPO for review and concurrence.

3.4.2 Native American Consultation / Coordination

For proposed actions, Federal agencies are required to consult with federally recognized Native American Tribes in accordance with the NEPA, the National Historic Preservation Act (NHPA), the Native American Graves Protection and Repatriation Act (NAGPRA), and Executive Order (EO) 13175.

As part of this NEPA process, VA consulted with seven federally recognized tribes that have potential ancestral ties to Jefferson County, Kentucky, in accordance with applicable regulations. These tribes were identified by the *U.S. Department of Defense 2007 Desk Guide to Military Installations and Federally Recognized Tribes Located in the South and Eastern United States* (VA 2007). VA invited these tribes to participate in the NEPA process as Sovereign Nations per EO 13175. VA sent a coordination and consultation letter to each of these tribes, via certified mail, in July 2011. As of the date of this PEA, no response from any of these seven tribes has been received (VA 2012).

3.4.3 Effects of the Action Alternatives

Acquisition of either of the Action Alternative sites by VA would produce no direct cultural resources effects. Future development of a replacement VAMC at one of these Sites may or may not have adverse impacts to cultural resources, including historic and archeological resources, aesthetics, and noise effects. Adverse impacts to aesthetics and noise effects are discussed in Section 3.2 and 3.8, respectively.

Preferred Action Alternative

No historic districts or eligible structures are located on or immediately adjacent to the Brownsboro Site. In addition, the Draft AI did not identify any archeological resources at the Brownsboro Site that are considered significant. As such, RC Goodwin concluded that the Brownsboro Site does not contain cultural resources and that the Preferred Action Alternative would have no effect on sites listed, or eligible for listing, in the NRHP. The Draft AI Report was submitted to the Kentucky SHPO for review and concurrence. The SHPO reviewed the IA and indicated that it concurred with its findings and recommendations. However the SHPO noted that this occurrence only applies to archeological resources. The SHPO stated that additional analyses would be required to evaluate direct and indirect impacts to above ground cultural resources within the APE of the Brownsboro Site to fulfill VA's Section 106 requirements.

Alternate Action Alternative

No historic districts or eligible structures are located on or immediately adjacent to the St. Joseph Site. In addition, the AI did not identify any archeological resources at the St. Joseph Site that are considered significant. As such, RC Goodwin concluded that the St. Joseph Site does not contain cultural resources and that the Alternate Action Alternative would have no effect on sites listed, or eligible for listing, in the NRHP. The Draft AI Report was submitted to the Kentucky SHPO for review and concurrence.

3.4.4 Effects of the No Action Alternative

Under the No Action Alternative, no significant adverse cultural resources impacts by VA would occur. No significant cultural resources were identified at either Site. As such, should either of the Action Alternative sites be developed by others, no significant adverse cultural resources impacts would occur.

3.4.5 Mitigation / Management Measures

Both Action Alternatives

As requested by the SHPO, as part of the SEA, VA would evaluate direct and indirect impacts to above ground cultural resources within the APE of the selected site and submit the evaluation to the SHPO for concurrence to fulfill VA's Section 106 requirements.

No project-specific mitigation measures are required. Implementing BMPs to reduce impacts during construction would further minimize potential impacts to local cultural resources.

Should human remains or other cultural items as defined by NAGPRA be discovered during project construction, the construction contractor would immediately cease work until VA, a qualified archaeologist, and the SHPO are contacted to properly identify and appropriately treat discovered items in accordance with applicable State and Federal law(s).

3.5 Geology and Soils

The geology of the Louisville, Kentucky area is composed of Devonian-aged (410 to 360 million year old) limestone and dolostone, and a thick deposit of dark gray to black shale. Geotechnical Investigations of both Action Alternative sites were conducted on behalf of VA in July 2011 by Greenbaum Associates, Inc. (Greenbaum). The results of these investigations are discussed in the following sections.

Preferred Action Alternative

A review of the Crossgate, Kentucky United States Geological Survey (USGS) Topographic Quadrangle (dated 1995) and a topographic map of the site prepared by Land Design and Development, Inc. (LDDI) for VA (2011) indicated that surficial topography of the Brownsboro Site is generally level with an elevation of approximately 590 feet above mean sea level (amsl). The nearest surface water body is Goose Creek, located approximately 1.1 miles north of the site. A review of the *Generalized Geologic Map for Land-Use Planning for Jefferson County* (dated 2004), published by the Kentucky Geological Survey (KGS), indicated that the Brownsboro Site is underlain by limestone with a high Karst Potential Rating. Karstification in the creation of the cavities due to water dissolving carbonate rock (limestone). Karstification can result in the formation of sinkholes.

According to the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey, the Brownsboro Site contains three soil types: Crider silt loam, 0 to 2 percent slopes (CrA); Nicholson silt loam, 2 to 6 percent slopes (NnB); and Lawrence silt loam, 2 to 6 percent slopes (LaB). Brownsboro Site soils are shown on Figure 10.

The Crider silt loam soils (southern two-thirds of the site) are characterized as well-drained soils, greater than 80 inches deep, with a moderately high to high permeability and a depth to water table of more than 80 inches. The Nicholson silt loam soils (northern and northwestern portions of the site) are characterized as moderately well-drained soils, with a depth up to 30 inches, underlain by fragipan (i.e., altered subsurface soil layers that restrict water flow and root penetration); with a very low to moderately low permeability and a depth to water table of 18 to 30 inches. The Lawrence silt loam soils (northeastern portion of the site) are characterized as somewhat poorly drained soils, with a depth up to 30 inches, underlain by fragipan; with a very low to moderately low permeability and a depth to water table of 12 to 25 inches.

The Greenbaum geotechnical investigations included 12 soil borings in a grid pattern at the Brownsboro Site. Soils encountered in the borings generally consisted of clay. Bedrock was encountered at depths ranging from approximately 7 to 19 feet below ground surface (bgs). The bedrock was cored at one location and was found to be fossiliferous limestone. Greenbaum indicated that the bedrock at the Brownsboro Site is mapped as the Sellersburg and Jeffersonville Limestones.

Greenbaum indicated that the Brownsboro Site is located in an area classified by the USGS as having moderate potential for karst activity. Greenbaum indicated that an inspection of the Site did not reveal any closed depressions or sinkholes commonly associated with karst activity and that the chance of encountering sinkholes at the Site was no greater than the surrounding area.

Alternate Action Alternative

A review of the Pee Wee Valley, Kentucky USGS Topographic Quadrangle (dated 1987) and a topographic map of the site prepared by LDDI for VA (2011) indicated that surficial topography of the St. Joseph Site is undulating, but relatively level in the central and southern portions of the site (elevation is approximately 740 feet amsl) and slopes down to the north to approximately 700 feet amsl, and slopes down to the south to approximately 715 feet amsl. The nearest surface water body is a tributary of Floyds Fork River located in the northern portion of site. Floyds Fork River is located approximately 1 mile east of the site. A review of the *Generalized Geologic Map for Land-Use Planning for Jefferson County* indicates that the St. Joseph Site is underlain by limestone, dolomite, and shale with a moderate Karst Potential Rating.

According to the USDA NRCS Web Soil Survey, the site contains eight soil types: Beasley silt loam, 6 to 12 percent slopes (BeC); Caneyville silt loam, 12 to 25 percent slopes, eroded, very rocky (CaD2); Crider silt loam, 0 to 2 percent slopes (CrA); Crider silt loam, 2 to 6 percent slopes (CrB); Crider silt loam, 6 to 12 percent slopes (CrC); Lindside silt loam, occasionally flooded (Ld); Nicholson silt loam, 2 to 6 percent slopes (NnB); and Nicholson silt loam, 6 to 12 percent slopes (NnC). St. Joseph Site soils are shown on Figure 11.

The Beasley silt loam soils (east-central portion of the site) are characterized as well-drained soils, with a depth of 40 to 60 inches, underlain by paralithic bedrock; with a moderately low permeability and a depth to water table of more than 80 inches. The Caneyville silt loam soils (northeastern portion of the site) are characterized as well-drained soils, with a depth of 20 to 40 inches, underlain by lithic bedrock; with a moderately low permeability and a depth to water table of more than 80 inches. The Crider silt loam soils (northern, central, and southern portions of the site) are characterized as well-drained soils, greater than 80 inches in depth, with a moderately high to high permeability and a depth to water table of more than 80 inches. The Lindside silt loam soils (northeastern and southern portions of the site) are characterized as moderately well-drained soils, with a depth of more than 80 inches, a moderately high to high permeability and a depth to water table of 18 to 36 inches. The Nicholson silt loam soils (central and southern portions of the site) are characterized as moderately well-drained soils, with a depth of up to 30 inches, underlain by fragipan; with a very low to moderately low permeability and a depth to water table of 18 to 30 inches.

The Greenbaum geotechnical investigation included 17 soil borings distributed across the St. Joseph Site. Soils encountered in the soil borings consisted of clay. Bedrock was encountered at depths ranging from approximately 2 to 15 feet bgs. Greenbaum indicated that the depth to bedrock typically ranged from 11 to 15 feet bgs in the southern portion of the Site and 7 to 10 feet bgs in the northern portion of the Site. Bedrock was shallower in drainage swales. The bedrock was cored at one location and was found to be fossiliferous limestone. Greenbaum indicated that the bedrock at the St. Joseph Site is mapped as Louisville Limestone.

Greenbaum indicated that the St. Joseph Site is in an area classified by the USGS as having moderate potential for karst activity. Greenbaum indicated that an inspection of the Site did not reveal any closed depressions or sinkholes commonly associated with karst activity and that the chance of encountering sinkholes at the Site was no greater than the surrounding area.

3.5.1 Prime and Unique Farmland Soils

Prime and Unique Farmlands are regulated in accordance with the Farmland Protection Policy Act (FPPA) (7 USC 4201, *et seq*.) to ensure preservation of agricultural lands that are of Statewide or local importance. Soils designated as prime farmland are capable of producing high yields of various crops when managed using modern farming methods. Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion. Unique farmlands are also capable of sustaining high crop yields and have special combinations of favorable soil and climate characteristics that support specific high-value foods or crops.

Preferred Action Alternative

According to the USDA NRCS Web Soil Survey, all of the soils at the Brownsboro Site are characterized as prime farmland or prime farmland, if drained (Lawrence silt loam). The native soils found at the Brownsboro Site are illustrated on Figure 10.

Alternate Action Alternative

According to the USDA NRCS Web Soil Survey, the Crider silt loam, Lindside silt loam, and Nicholson silt loam soils at the St. Joseph Site are characterized as prime farmland. The Lawrence silt loam soils at the St. Joseph Site are characterized as prime farmland, if drained. The Beasley silt loam soils are characterized as farmland of statewide importance. These soils constitute greater than 90 percent of the Site. The Caneyville silt loam soils are not characterized as prime or unique farmland. The soils found at this site are illustrated in Figure 11.

3.5.2 Effects of the Action Alternatives

Both Action Alternatives

Acquisition of either of the Action Alternative sites by VA would produce no direct geology or soils effects. However, future development of a new VAMC could have adverse effects to geology and soils, as discussed below.

No significant changes to topography or drainage would be expected at the Brownsboro or St. Joseph Sites due to the Proposed Action. Development at either site would be designed in concert with current topography and drainage. Paved areas would be designed to drain to a municipal or onsite stormwater management system. More grading would be anticipated at the St. Joseph Site due to the rolling topography of the Site; the Brownsboro Site is relatively level.

Less-than-significant impacts to geology are anticipated. Based on currently available data, no active significant faults are known extend through the subsurface geology at these sites. As such, no impacts associated with seismic hazards are identified. No significant impacts to mineral resources are anticipated, as the Proposed Action would not involve the commercial extraction of mineral resources, nor affect mineral resources considered important on a local, State, national, or global basis.

Both sites are located in an area where shallow limestone bedrock may occur and in areas with a moderate to high Karstification Potential Rating. The City of Louisville LDC includes an ordinance for development on Karst Terrain. The ordinance requires that proposed land-disturbing activity located within the Karst Prone area of Jefferson County, shall complete a karst survey of the property and shall identify on plans all karst geologic features. The karst survey shall be conducted by a geologist or engineer licensed in the State of Kentucky. The geotechnical investigations by Greenbaum did not identify any karst features at either Site.

During construction, less-than-significant, direct and indirect, short-term adverse soil erosion and sedimentation impacts would be possible as the proposed buildings, parking areas, entrance roads, and other project components are constructed. Construction would remove the vegetative cover, disturb the soil surface, and compact the soil. The soil would then be susceptible to erosion by wind and surface runoff. Exposure of the soils during construction has the potential to result in increased sedimentation in the municipal or onsite stormwater management systems, and the potential for offsite discharges of sediment-laden runoff. However, such potential adverse erosion and sedimentation effects would be prevented through utilization of appropriate BMPs and adherence to the terms of the Kentucky Department of Environmental Protection (KDEP), Kentucky Pollution Discharge Elimination System (KPDES) General Permit for Construction Activity; the City of Louisville Land Development Code (LDC), Chapter 4, Part 8, Waterways and Wetland Protection, and the LDC Chapter 4, Appendix H, Erosion Prevention and Sediment Control (EPSC). Permit standards would be adhered to, as applicable, during all construction activities.

The USEPA has authorized the KDEP, Division of Water (DOW) to implement the NPDES stormwater permitting program in Kentucky (KDPES). The USEPA's authority to administer the NPDES program is set forth in Title III and Title IV of the Clean Water Act. The KPDES stormwater program regulates point source discharges of stormwater into surface waters of the United States from certain municipal, industrial, and construction activities. As the KPDES stormwater permitting authority, the KDEP DOW is responsible for promulgating rules and issuing permits, managing and reviewing permit applications, and performing compliance and enforcement activities.

Once construction is complete, no long-term erosion and sedimentation impacts would be anticipated due to the nature of the Proposed Action. No long-term soil erosion impacts would occur as a result of increased impervious surfaces onsite; these effects would be mitigated by including appropriately designed stormwater system as part of final site design.

The Brownsboro and St. Joseph Sites contain prime farmland soils. However, the loss of prime farmland soils at these sites is considered to be a less–than-significant adverse impact. Where construction would impact Prime Farmland, VA would document impacts to these soil resources by completing the USDA Farmland Conservation Impact Rating Form (Form AD-1066). This form would be submitted to the local NRCS office and VA would follow the procedural request associated with this form in accordance with the Farmland Protection Policy Act (FPPA; 7 CFR 658)

3.5.3 Effects of the No Action Alternative

Under the No Action Alternative, no construction by VA would occur. No impacts to soils, topography, or geology would occur at either of the Action Alternative sites. However, should the Action Alternative sites ultimately be developed by others, impacts as identified above, at a minimum, would occur.

3.5.4 Mitigation / Management Measures

Both Action Alternatives

No project-specific mitigation measures are required.

Possible shallow bedrock and karst conditions at the Brownsboro and St. Joseph Sites may require geotechnical management measures. VA would complete a karst survey of the property and would identify on plans all karst geologic features. The karst survey shall be conducted by a geologist or engineer licensed in the State of Kentucky.

Construction:

Sinkholes encountered during construction activities, if any, would be inspected by an experienced geotechnical engineer, who would recommend stabilization measures to prevent erosion into any karst feature.

VA would document impacts to prime farmland soils by completing the USDA Farmland Conservation Impact Rating Form and would submit the form to the local NRCS office.

Bedrock at both sites generally occurs at depths ranging from 7 to 15 feet bgs, but may be shallower in places. Once a site is selected and preliminary design work is completed (building location is selected, etc.), VA would conduct a more detailed geotechnical investigation of the selected site. This additional investigation would be used to assess whether shallow bedrock removal is necessary or not, and would be further assessed in the site-specific SEA.

Implementing BMPs to reduce erosion and sedimentation impacts during construction would further minimize the potential impacts on local soils and water quality. These erosion and sedimentation control BMPs include developing and submitting the KDEP NPDES General Permit for Construction Activity. The KPDES permit would require stormwater runoff and erosion management using BMPs, earth berms, detention basins, vegetative buffers and filter strips, and spill prevention and management techniques. The construction contractor would implement the following as appropriate and necessary to protect surface water quality, as part of KPDES permit:

- Install and monitor erosion-prevention measures (BMPs), such as silt fences and water breaks, detention basins, filter fences, sediment berms, interceptor ditches, straw bales, rip-rap, and/or other sediment control structures; re-spread stockpiled topsoil; and seed/re-vegetate areas temporarily cleared of vegetation.
- Retain on-site vegetation to the maximum extent possible.
- Plant and maintain soil-stabilizing vegetation on disturbed areas.
- Use native vegetation to re-vegetate disturbed soils.

The construction contractor would obtain all required permits before any proposed construction activities commence and would adhere to permit conditions during all onsite construction activities.

If measures in the KPDES permit are approved and correctly utilized for development, direct soil erosion and resulting indirect sedimentation impacts would be minimized to *less-than-significant* levels. Successful implementation of these measures would ensure that the Proposed Action is in compliance with local, State, and Federal water quality standards and minimizes both the short- and long-term potential for erosion and sedimentation.

Implementation of these measures would maintain identified impacts at *less-than-significant* levels by properly controlling and limiting soil erosion and sedimentation impacts.

FIGURE 10
BROWNSBORO SITE
SOILS MAP

PROGRAMMATIC ENVIRONMENTAL ASSESSMENT
PROPOSED VAMC
LOUISVILLE, KENTUCKY

PREPARED FOR

U.S. DEPARTMENT OF VETERANS AFFAIRS
WASHINGTON, D.C.

TTL PROJECT NO.
6960.03

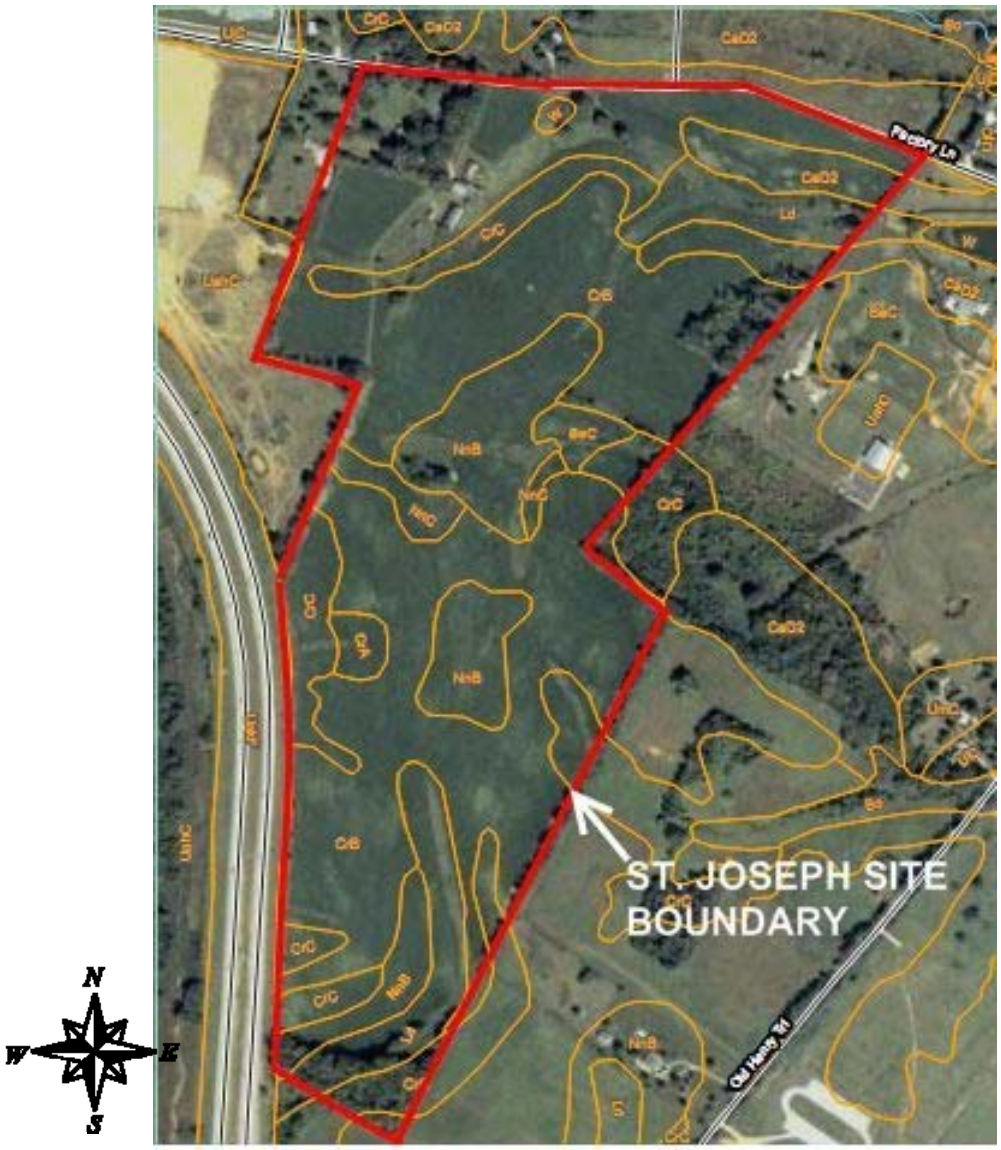

FIGURE 11
ST. JOSEPH SITE
SOILS MAP

PROGRAMMATIC ENVIRONMENTAL ASSESSMENT
PROPOSED VAMC
LOUISVILLE, KENTUCKY

PREPARED FOR

U.S. DEPARTMENT OF VETERANS AFFAIRS
WASHINGTON, D.C.

TTL PROJECT NO.
6960.03

3.6 Hydrology and Water Quality

3.6.1 Surface Waters

Preferred Action Alternative

The Brownsboro Site is located in the Goose Creek Watershed. Stormwater runoff from the site infiltrates into onsite soils. No surface water features were identified on the Brownsboro Site. The nearest surface water body is Goose Creek, located approximately 1.1 miles north of the site.

The PWA expressed a concern regarding the conversion of pervious surfaces into impervious surfaces with respect to surface drainage in the vicinity of the Brownsboro Site.

The KDEP DOW stated that BMPs should be used to reduce runoff from the project into adjacent surface waters and stated that any development within floodplains would require a Stream Construction Permit issues by the DOW.

Alternate Action Alternative

The St. Joseph Site is located in the Floyds Fork Watershed. Surface water in the northern portion of the site infiltrates into site soils and collects in two depressional wetlands and a perennial stream channel (Floyds Fork Tributary), crossing the northern portion of the site from west to east. Both depressional wetlands are hydraulically connected to the Floyds Fork Tributary. Wetlands are discussed in Section 3.10. The perennial stream appears to primarily be the result of shallow groundwater seepage; however, surface water runoff also contributes to its perennial state.

The perennial stream channel flows off-site to the east into a pond on the east adjoining property and further discharges in the Floyds Fork River, located approximately one mile east of the St. Joseph Site. Floyds Fork River flows generally to the south-southwest and discharges into the Salt River approximately 22 miles south of the Site. The Salt River flows an additional approximately 14 miles to the west and discharges into the Ohio River.

Surface water in the central portion of the St. Joseph Site infiltrates into site soils, collects in a depressional wetland located in the central portion of the site, and flows off-site to the east in an intermittent drainage swale. An intermittent swale periodically discharges water from the depressional wetland in extreme water events.

Surface water in the southern portion of the St. Joseph Site infiltrates into site soils and collects in a low-lying area along the southern boundary of the site. A small perennial stream originates near the southern boundary of the site and flows from east to west. The perennial stream appears to primarily be the result of shallow groundwater seepage; however, surface water runoff also contributes to its perennial state.

A series of intermittent drainage swales were observed across the Site, including three in the northern portion of the Site, three in the central portion of the Site, and four in the southern portion of the Site. These intermittent drainage swales are a result of the rolling topography of the site. None of the intermittent drainage swales appear to be semi-permanent, as defined by the USACE, and are not considered to be Waters of the US Surface water features are illustrated on Figure 12.

The USACE stated that “Waters of the US” may be located on the St. Joseph Site and a jurisdictional determination is required.

The PWA expressed a concern regarding the conversion of pervious surfaces into impervious surfaces with respect to surface drainage in the vicinity of the St. Joseph Site.

The KDEP DOW stated that BMPs should be used to reduce runoff from the project into adjacent surface waters and stated that any development within floodplains would require a Stream Construction Permit issued by the DOW.

The USEPA has authorized the KDEP DOW to implement the NPDES stormwater permitting program in KDPES. The USEPA's authority to administer the NPDES program is set forth in Title III and Title IV of the Clean Water Act. The KPDES stormwater program regulates point source discharges of stormwater into surface waters of the United States from certain municipal, industrial, and construction activities. As the KPDES stormwater permitting authority, the KDEP DOW is responsible for promulgating rules and issuing permits, managing and reviewing permit applications, and performing compliance and enforcement activities.

As part of the Louisville Planning and Design Department, the LDC requires a plan to control erosion and sedimentation (Chapter 4, Appendix 4H), in order to control soil erosion and sedimentation arising from development and other land disturbing activities, to conserve, preserve, and enhance the natural resources of Jefferson County, to comply with all applicable federal and state requirements for clean water, as well as to achieve other public purposes. In addition, the LDC requires the protection of waterways and wetlands (Chapter 4, Part 8) and specifies buffer sizes along protected waterways and wetlands under the jurisdiction of the USACE.

3.6.2 Groundwater

According to the Groundwater Atlas of the United States, Carbonate rocks of Devonian, Silurian, and Ordovician age, which are primarily limestone with some dolomite, are the principal aquifers in large areas of central Kentucky in the Interior Low Plateaus Province. The Ordovician rocks crop out and lie beneath Silurian, Devonian, and younger rocks. The carbonate-rock aquifers consist of almost pure limestone and minor dolomite and are interlayered with confining units of shale and limestone. Where these aquifers are in the subsurface, they are overlain by and separated from the Mississippian aquifers by a confining unit of Upper Devonian shale. The depth of freshwater in the limestone and dolomite aquifers can vary greatly, but wells completed in these aquifers generally range from 50 to 200 feet deep in Kentucky.

Preferred Action Alternative

Groundwater was encountered in one of the geotechnical soil borings at the Brownsboro Site at a depth of approximately 11 feet bgs. Groundwater was not encountered in the remaining geotechnical soil borings. No site-specific information pertaining to the groundwater flow direction at the Brownsboro Site was identified as part of this PEA. The water table often follows the ground surface topography. Therefore, shallow groundwater at the Brownsboro Site is likely to flow to the north, towards Goose Creek.

The KDEP DOW stated that a Groundwater Protection Plan (GPP) would be required if any activities detailed in the GPP regulation would be conducted. Any existing wells to be abandoned and any new wells installed would need to be completed by a Kentucky-certified well driller.

Alternate Action Alternative

Groundwater was not encountered in any of the geotechnical soil borings conducted at the St. Joseph Site, which were advanced to depths ranging between approximately 2 and 15 feet

bgs. However, groundwater may be seasonally present at these depths. No site-specific information pertaining to the groundwater flow direction at the St. Joseph Site was identified as part of this PEA. The water table often follows the ground surface topography. Therefore, shallow groundwater at the site is likely to flow towards the on-site stream in the northern portion of the site. Groundwater in the overall area is likely flow to the east towards Floyd Fork River.

3.6.3 Effects of the Action Alternatives

Acquisition of either of the Action Alternative sites by VA would produce no direct hydrology and water quality effects. However, future development of a new VAMC may or may not have adverse impacts to hydrology and water quality.

Preferred Action Alternative

No site-specific hydrology and water quality effects are anticipated. General impacts associated with the Proposed Action are discussed below.

Alternate Action Alternative

Floyds Fork Tributary on the northern portion and the perennial stream on the southern portion of the St. Joseph Site would be under the jurisdiction of the USACE (Section 404) and the KDEP DOW (Section 401) due to their likely connection to Waters of the US. According to the USACE, a jurisdictional determination is required prior to impacts to "Waters of the US". Any activity within these surface waters or that may otherwise impact the Waters of the US would require a permit from the appropriate State or Federal agency(ies).

The Alternate Action Alternative could result in direct or indirect adverse impacts to these Waters of the US. However as explained below in 3.6.5, VA anticipates that through environmentally sensitive site design and following good engineering practices, as well as consultation with pertinent Federal, State, and local regulatory agencies, these potential impacts would be avoided or managed to less-than-significant levels. Waters of the US would be avoided to the extent possible (see Section 3.6.5). These measures would be fully developed as part of the subsequent, site-specific SEA, concurrent with the site design efforts.

Both Action Alternatives

Implementation of the Proposed Action would not result in significant adverse impacts to surface or groundwater resources, provided the BMPs and avoidance/mitigation measures (St. Joseph Site) described in Section 3.6.5 are implemented. These BMPs would control construction-related impacts of soil erosion and sedimentation, and would provide a proper onsite stormwater management system.

As required by Executive Orders (EOs) 13514 and 11988, Federal agency projects are required to include designs for sufficient stormwater management so as to not adversely affect the flood elevations or water quantity/quality in receiving waters. Post-project hydrology shall replicate pre-project hydrology through the appropriate engineering design and implementation of a proposed onsite stormwater management system.

It is not anticipated that groundwater would be impacted by the Proposed Action. If limited areas of deeper excavation are required or shallow groundwater is encountered during construction, appropriate groundwater engineering controls would be utilized to ensure no long-term adverse effects to groundwater. As such, no impacts to groundwater are anticipated.

3.6.4 Effects of the No Action Alternative

Under the No Action Alternative, no construction by VA would occur. No impacts to water resources at either of the Action Alternative sites would occur. However, should the Action Alternative sites ultimately be developed by others, impacts as identified above would occur.

3.6.5 Mitigation / Management Measures

Preferred Action Alternative

No mitigation measures are required.

Alternate Action Alternative

VA would implement the following mitigation (if necessary), avoidance, and management measures to reduce potential adverse effects to Waters of the US to acceptable, less-than-significant levels. These measures would be fully developed as part of the subsequent, site-specific SEA, concurrent with the site design efforts. VA anticipates that through environmentally sensitive site design and following good engineering practices, surface waters would be avoided.

VA would avoid onsite surface water resources to the extent possible during the site design process. VA would consult with, and obtain the necessary permit(s) from the USACE and KDEP under Sections 401 and 404 of the Clean Water Act, to minimize adverse effects to jurisdictional surface water resources prior to construction. VA anticipates that final VAMC design would maintain a buffer of undisturbed land around the majority of the identified surface water resources. However, in those cases where impacts to Waters of the US cannot be avoided (e.g., at stream crossings), VA would obtain and comply with all necessary permits from Federal and State agencies.

To minimize potential adverse impacts from the implementation of the Alternate Action Alternative, VA would:

- Obtain a jurisdictional determination from the USACE regarding identified wetlands and Waters of the US.
- Develop a site design that avoids interaction with onsite and adjacent wetlands and surface waters.
- Obtain and execute any requirements of necessary permits from the appropriate Federal or State agencies under Sections 401 and 404 of the Clean Water Act.
- Develop a site plan that provides a buffer around jurisdictional wetlands and surface waters in accordance with the City of Louisville and Jefferson County Waterways and Wetlands Protection Ordinance (Land Development Code, Chapter 4, Part 8).

Both Action Alternatives

The Proposed Action would require a KPDES permit from the KDEP DOW.

To minimize potential adverse impacts to the Action Alternative site areas, VA would implement the following BMPs:

- VA shall ensure compliance with Executive Orders 13514 and 11988, and as part of the KPDES permitting process, the Proposed Action design includes sufficiently stormwater management so as to not adversely affect the flood elevations or water

quantity/quality in receiving waters. Post-project hydrology shall replicate pre-project hydrology through the appropriate engineering design and implementation of a proposed stormwater management system located at the site, working closely with the KDEP and the City of Louisville.

- VA shall prepare an Erosion Prevention and Sediment Control Plan (EPSCP) and implement the soil erosion and sedimentation methodologies detailed in the EPSCP.
- Develop a site design that prevents surface water runoff to the adjacent surface waters.
- VA shall obtain and execute any requirements of necessary permits from Federal and State agencies.

Implementation of these BMPs would ensure identified water resources impacts are maintained as less-than-significant levels.

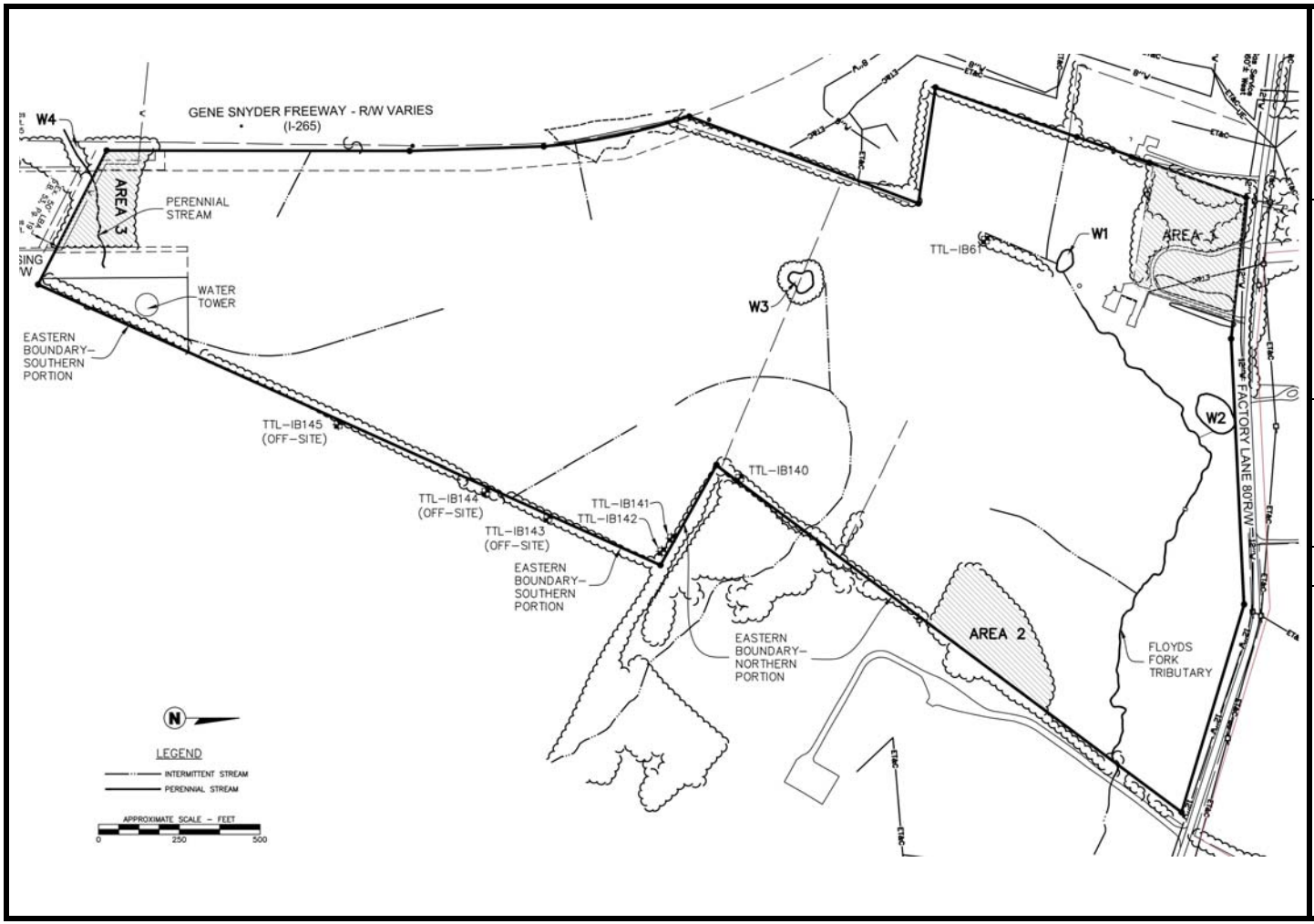

FIGURE 12
ST. JOSEPH SITE
SURFACE WATER FEATURES

PROGRAMMATIC ENVIRONMENTAL ASSESSMENT
PROPOSED VAMC
LOUISVILLE, KENTUCKY

PREPARED FOR

U.S. DEPARTMENT OF VETERANS AFFAIRS
WASHINGTON, D.C

CHECKED	APPROVED
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3.7 Wildlife and Habitat

3.7.1 Vegetation and Wildlife

Preferred Action Alternative

The Brownsboro Site is currently vacant unimproved grassy land with scattered trees in the northwestern portion where a farmstead was formerly located. None of the original natural vegetation communities are present on the Brownsboro Site. The lands immediately adjacent to this site are generally residential [east, south, and west (across I-264)] and commercial (north). Such vegetative communities support wildlife species associated with suburban areas in Kentucky.

Alternate Action Alternative

The St. Joseph Site includes mostly unimproved, agricultural land, limited wooded areas in the northwestern, central, and southern portions, and along the eastern boundary. Little of the original natural vegetation communities are present on the St. Joseph Site. The lands immediately adjacent to this site are generally undeveloped (north, east, and south), residential (west), pasture land (east), or institutional (east). Such vegetation communities support wildlife species associated with suburban areas in Kentucky.

3.7.2 Threatened and Endangered Species

Preferred Action Alternative

As part of the preparation of this PEA, the USFWS, the Kentucky Department of Natural Resources (KDNR), and the Kentucky Department of Fish and Wildlife Resources (KDFWR) were contacted to identify any potential for presence of State or Federally listed threatened or endangered species on or in the vicinity of the Brownsboro Site. The USFWS indicated that the Brownsboro Site is situated within the home range of a known Indiana Bat (*Myotis sodalis*) maternity colony (suitable habitat used by juveniles and reproductive females) (see Appendix A). The Indiana Bat is a Federally-listed endangered species. However, the USFWS noted that the Brownsboro Site is a previously cleared field, adjacent to a highway, and surrounded by development. Based on these factors, the USFWS stated that the Brownsboro Site does not contain suitable roost trees for Indiana Bats and future development at the Brownsboro Site would not likely adversely affect the Indiana Bat.

The KDFWR indicated that no listed species were identified for the Brownsboro Site; however, this site falls within known Indiana Bat summer maternity habitat and is considered a sensitive area for this species. KDFWR noted that sensitive areas require coordination with the USFWS Kentucky Field Office prior to construction. However, the USFWS stated that the Brownsboro Site does not contain suitable roost trees for Indiana Bats and future development at the Brownsboro Site would not likely adversely affect the Indiana Bat.

The PWA stated that there are several endangered species of plants, such as Running Buffalo Clover, that have been documented in Jefferson County. PWA also stated that Indiana Bats have been found in many wooded areas in Jefferson County. However, USFWS did not identify the Brownsboro Site to contain suitable habitat for Running Buffalo Clover and stated that future development of the Brownsboro Site would not likely adversely affect the Indiana Bat

As the Brownsboro Site has been mostly disturbed in the past, habitat values on the site are low.

Alternate Action Alternative

As part of the preparation of this PEA, the USFWS, the KDNR, and the KDFWR were contacted to identify any potential for presence of State or Federally listed threatened or endangered species on or in the vicinity of the St. Joseph Site. The USFWS indicated that the St. Joseph Site is located within potential Indiana Bat habitat range (see Appendix A). To minimize impacts to the Indiana Bat, the USFWS stated that VA should design the new VAMC to eliminate impacts to the Indiana Bat; request a formal Section 7 consultation; or enter into a Conservation Memorandum of Agreement (MOA) with the USFWS to account for the incidental taking of Indiana Bats. However, the USFWS stated that seasonal tree clearing between the dates of October 15 through March 31, could occur without additional mitigation.

The USFWS stated that the St. Joseph Site includes habitat that supports the presence of Running Buffalo Clover (*Trifolium stoloniferum*), a Federally-listed endangered species. The USFWS stated that alteration of habitat at the St. Joseph Site would require an on-site inspection for the presence of Running Buffalo Clover.

The KDFWR indicated that no listed species were identified in the vicinity of the St. Joseph Site, but impacts to streams and wetlands should be addressed if deemed necessary.

The PWA stated that there are several endangered species of plants, such as Running Buffalo Clover, that have been documented in Jefferson County. PWA also stated that Indiana Bats have been found in many wooded areas in Jefferson County.

As the St. Joseph Site has been mostly disturbed in the past, habitat values on the site are low.

At the request of VA, TTL prepared a Threatened and Endangered Species Habitat Survey, dated February 20, 2012 and a Running Buffalo Clover Survey, dated May 31, 2012, to evaluate for the potential presence and use of the St. Joseph Site by Indiana Bats and Running Buffalo Clover (Appendix C). The following is a summary of the Threatened and Endangered Species Habitat Survey and Running Buffalo Clover Survey findings.

Indiana Bat

The forested areas of the site include approximately 3.7 acres of fragmented forest in the vicinity of the former homestead and outbuildings in the northwestern portion of the St. Joseph Site (Area 1); an approximately 2-acre forested area in the northeastern portion of the Site (Area 2); an approximately 1.2-acre forested area along the southern boundary of the Site (Area 3); and an approximately 0.34-acre forested area surrounding a wetland in the central portion of the site (Wetland Area W3). In addition, a tree-lined stream (Floyds Fork Tributary), with associated wetlands/ponds crosses the northern portion of the Site. A tree-lined fence row is also located along the eastern boundary of the Site. Refer to the attached Figure 12 for the location of wooded areas at the site.

Due to the seasonal timing (winter), no evidence of the use of the Alternate Action Alternative by Indiana Bats was observed. However, the Site includes areas that could provide foraging and roosting habitat for Indiana Bats. Area 1, Area 2, and the eastern Site boundary (northern portion) are the most likely areas for Indiana Bat activities due to the number of trees and available surrounding habitat. To a lesser extent, Wetland Area W3, in the central portion of the Site, supports foraging and roosting habitat for Indiana Bats; however, its small size (approximately 0.34 acres) and the small number of available trees for roosting (three trees) would limit Indiana Bat activities in this area.

The southern portion of the eastern Site boundary and the two lone trees south of Wetland Area W1 and east of Wetland Area W3 are not likely to support roosting activities by Indiana Bats; however, due to their proximity to other, higher quality habitats, they would likely be included as foraging habitat, if Indiana Bats are present.

Although Area 3 includes sufficiently-sized trees for roosting and surrounding habitat that may be used for foraging, it is less likely to be an active location for Indiana Bats due to its limited size and the presence of human activity (water tower and Interstate 265) adjoining to Area 3.

Running Buffalo Clover

The majority (approximately 80%) of the St. Joseph Site is cultivated agricultural land that is exposed to full sun. These conditions are not suitable Running Buffalo Clover habitat. However, several smaller areas that could potentially support the presence of Running Buffalo Clover were identified at the St. Joseph Site, including the edge of the tree lines primarily along the eastern boundary, but in other portions as well; the edges of Floyds Fork Tributary; the edges of Wetland Areas W1, W2, and W3; the edges of Factory Lane; and the edges of the wooded area along the southern boundary. Although the habitat survey was conducted in late January/early February 2012, which is not ideal for the identification of Running Buffalo Clover, due to the unusually mild winter, remnants of short-growing, herbaceous vegetation were present. Areas with suitable habitat for Running Buffalo Clover were covered with invasive, herbaceous species. No clover of any kind was observed.

In May 2012, TTL completed a Running Buffalo Clover Survey at the St. Joseph Site. Within the limited non-agricultural areas of the St. Joseph Site, significant populations of White Clover (*Trifolium repens*) and Red Clover (*Trifolium pratense*) were observed. No Running Buffalo Clover populations were identified on the site. However, Running Buffalo Clover was identified in three separate locations off-site along the eastern boundary of the southern portion of the St. Joseph Site (see Figure 13). Two of the locations included one individual each and the third location included two individuals.

Both Action Alternatives

The KDFWR also generally stated for both Action Alternative sites that indirect impacts to aquatic resources should be minimized through the implementation of strict erosion control measures prior to construction to minimize siltation into streams and stormwater drainage systems located within the project area. Such erosion control measures may include, but are not limited to silt fences, staked straw bales, brush barriers, sediment basins, and diversion ditches. Erosion control measures would need to be installed prior to construction and should be inspected and repaired regularly as needed.

The City of Louisville currently maintains a Tree Canopy and Landscaping ordinance (LDC Chapter 10). The intent of the ordinance is to protect, conserve, preserve and replace trees in order to enhance community character, provide wildlife habitat, maintain air and water quality, decrease stormwater runoff, prevent soil erosion, provide noise buffers, and enhance property values. It is also intended to provide several alternative means to the Planning Commission to further the goals and objectives of the Comprehensive Plan by providing for flexible tree canopy requirements subject; however, to specified standards and findings. Tree canopy standards shall be met on site to the maximum extent feasible and tree preservation is the preferred means of accomplishing canopy objectives.

The KDEP Nature Preserves Commission indicated that they did not have any concerns pertaining to the Proposed Action.

3.7.3 Effects of the Action Alternatives

Acquisition of either of the Action Alternative Sites by VA would produce no direct wildlife and habitat effects. However, future development of a new VAMC may or may not have adverse impacts to wildlife and habitat.

Preferred Action Alternative

Implementation of the Proposed Action at the Brownsboro Site would have less-than-significant adverse effects on biological resources. The site is currently occupied by vacant, mostly unimproved grassy land. No original habitat exists on the Brownsboro Site due to previous clearing activities. The USFWS stated that the Brownsboro Site does not contain suitable roost trees for Indiana Bats and future development at the Brownsboro Site would not likely adversely affect the Indiana Bat. No other possible threatened or endangered species were identified at the Brownsboro site by the USFWS or KDFWR.

Alternate Action Alternative

Implementation of the Proposed Action at the St. Joseph Site could have potentially significant adverse effects. The USFWS indicated that the St. Joseph Site is located within potential Indiana Bat habitat range and may contain suitable habitat for Running Buffalo Clover. Suitable habitat for both species was identified at the St. Joseph Site during the habitat survey. A survey for Running Buffalo Clover in May 2012 did not identify Running Buffalo Clover at the St. Joseph; however Running Buffalo Clover was identified adjacent to the eastern boundary of the southern portion of the Site.

However, as explained below in 3.7.5, VA anticipates that through environmentally sensitive site design and following good engineering practices, as well as consultation with USFWS, these potential impacts would be mitigated or managed to less-than-significant levels. Protected wildlife and habitat would be avoided to the extent possible. These measures would be fully developed as part of the subsequent SEA, concurrent with the site design efforts.

3.7.4 Effects of the No Action Alternative

Under the No Action Alternative, no construction by VA would occur. No impacts to biological resources would occur. However, should the Action Alternative sites ultimately be developed by others, impacts similar to those identified under the Proposed Action would occur.

3.7.5 Mitigation / Management Measures

Preferred Action Alternative

No project-specific mitigation measures are required for the Preferred Action Alternative.

Alternate Action Alternative

If the Alternate Action Alternative site is selected, VA would implement the following mitigation (if necessary), avoidance, and management measures to reduce potential adverse effects protected wildlife and habitat to acceptable, less-than-significant levels. These measures would be fully developed as part of the subsequent, site-specific SEA, concurrent with the site design efforts. VA would:

- Submit the habitat survey and Running Buffalo Clover survey to the USFWS for their review and comment.

- Maintain a buffer of undisturbed land around identified protected wildlife resources, if possible.

- If impacts to protected wildlife resources cannot be avoided, VA would consult and comply with Federal and State agencies. If impacts to the Indiana Bat and Running Buffalo Clover are unavoidable, VA would enter into a MOA with the USFWS to account for the incidental taking of Indiana Bats and Running Buffalo Clover. In addition, VA would conduct seasonal tree clearing (October 15 through March 31) in coordination with the USFWS to minimize impacts to Indiana Bats.

Both Action Alternatives

VA would implement the following BMPs for the Proposed Action to reduce biological resources impacts during construction and operation:

- Construction should be timed to avoid nesting periods of migratory birds on the Site and protected under the Migratory Bird Treaty Act. This Act prohibits the taking of migratory birds, their nests, and eggs. Thus, it is recommended that tree removal at the Site, if necessary, be conducted outside the migratory bird nesting season of April through July so that nests are not disturbed. If it is not practical to clear the Site outside of this time frame, a qualified biologist should survey the Site prior to tree clearing to ensure that no active nests are disturbed
- Native species should be used to the extent practicable when re-vegetating land disturbed by construction to avoid the potential introduction of non-native or invasive species.
- VA shall comply with, to the extent practical, the City of Louisville Tree Canopy and Landscaping ordinance.
- VA would minimize indirect impacts to aquatic resources through the design and implementation of an Erosion Prevention and Sediment Control Plan.

Implementation of these BMPs would serve to further reduce less-than-significant biological resources impacts.

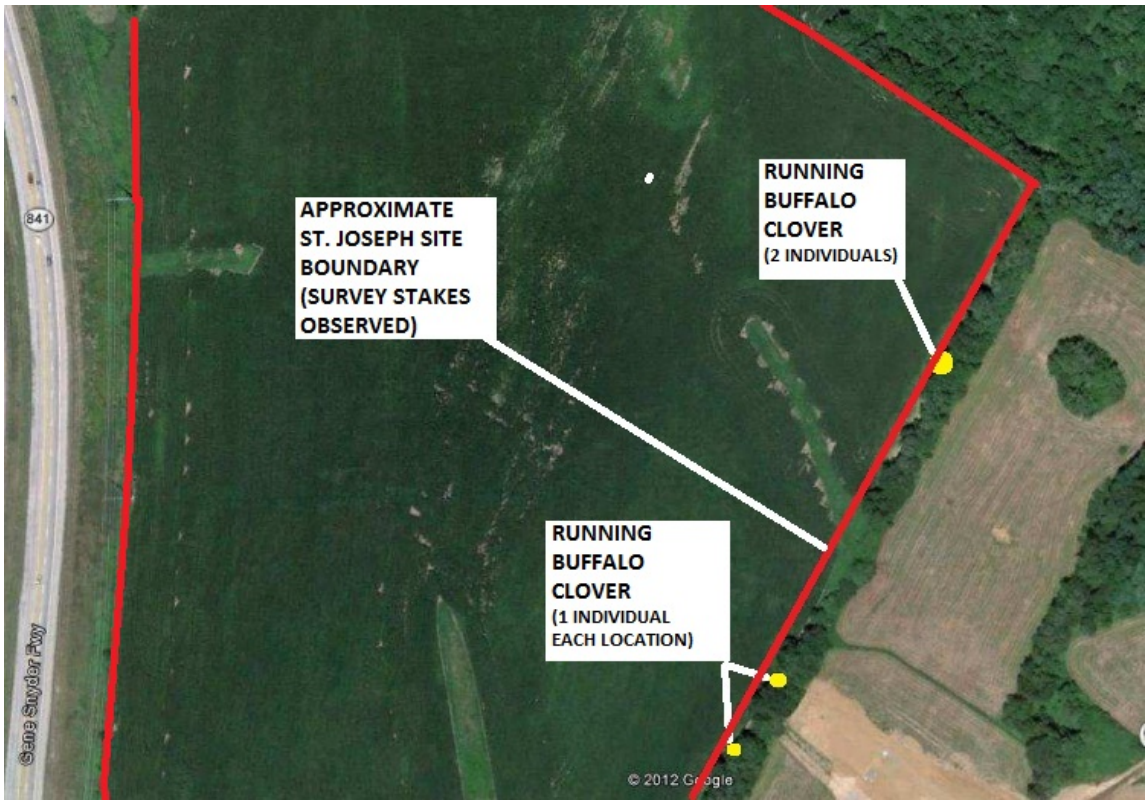

FIGURE 13
ST. JOSEPH SITE
RUNNING BUFFALO CLOVER MAP

PROGRAMMATIC ENVIRONMENTAL ASSESSMENT
PROPOSED VAMC
LOUISVILLE, KENTUCKY

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3.8 Noise

Preferred Action Alternative

The existing noise environment around the Brownsboro Site is dominated by vehicle traffic along Brownsboro Road and I-264. No other notable noise-generating sources are present in the immediate vicinity of this site. As such, the noise environment of the site can be characterized as that typical of a suburban area.

Alternate Action Alternative

The existing noise environment around the St. Joseph Site is dominated by vehicle traffic along Factory Lane and I-265. No other notable noise-generating sources are present in the immediate vicinity of this site. As such, the noise environment of the site can be characterized as that typical of a suburban area.

3.8.1 Effects of the Action Alternatives

Acquisition of either of the Action Alternative Sites by VA would produce no direct noise effects. Based on the Proposed Action of establishing a new VAMC, no long-term noise impacts are anticipated. However, future development of a new VAMC could have short-term adverse noise effects.

The geotechnical investigations identified bedrock at both Action Alternative sites generally at 7 to 15 feet bgs, but may be shallower in places. Due to the possible presence of shallow bedrock on each of the Action Alternative sites, bedrock removal may be required for the VAMC construction. Bedrock removal, if necessary, would likely be conducted with an excavator equipped with a hydraulic ram. However, blasting could also be required. The City of Louisville does not maintain a blasting ordinance; however, the City of Louisville requires following the State of Kentucky Administrative Regulations (KAR), Revised Statute 350.330 for blasting. Permission for blasting is included in the standard City of Louisville building permit necessary prior to any construction activities. Noise associated with blasting is not included in the City of Louisville noise ordinance (Chapter 99 of the General Regulations).

Noise generated from either of the Action Alternative sites would have short-term impacts to the existing noise environment due to construction activities onsite. Noise generating sources during construction activities would be associated primarily with standard construction equipment and construction equipment transportation. These increased noise levels could directly affect the neighboring area, including the residential properties located in the vicinity of the chosen site.

Construction activities generate noise by their very nature and are highly variable, depending on the type, number, and operating schedules of equipment. Construction projects are usually executed in stages, each having its own combination of equipment and noise characteristics and magnitudes. Construction activities are expected to be typical of other similar construction projects and would include mobilization, site preparation, demolition, excavation, placing foundations, utility development, heavy equipment movement, and paving roadways and parking areas. The most prevalent noise source at typical construction sites is the internal combustion engine. General construction equipment using engines includes, but is not limited to: heavy, medium, and light equipment such as excavators; roller compactors; front-end loaders; bulldozers; graders; backhoes; dump trucks; water trucks; concrete trucks; pump trucks; utility trucks; cranes; sheet pile drivers; man lifts; forklifts; and lube, oil, and fuel trucks.

Peak noise levels vary at a given location based on line of sight, topography, vegetation, and atmospheric conditions. In addition, peak noise levels would be variable and intermittent because each piece of equipment would only be operated when needed. However, peak construction noise levels would be considerably higher than existing noise levels. Relatively high peak noise levels in the range of 93 to 108 dBA (decibels, A-weighted scale) would occur on the active construction site, decreasing with distance from the construction areas. Table 2 presents peak noise levels that could be expected from a range of construction equipment during proposed construction activities.

Generally speaking, peak noise levels within 50 feet of active construction areas and material transportation routes would most likely be considered “striking” or “very loud”, comparable to peak crowd noise at an indoor sports arena. At approximately 200 feet, peak noise levels would be loud - approximately comparable to a garbage disposal or vacuum cleaner at 10 feet. At 0.25 mile, construction noise levels would generally be quiet enough so as to be considered insignificant, although transient noise levels may be noticeable at times.

Combined peak noise levels, or worst-case noise levels when several loud pieces of equipment are used in a small area at the same time as described in Table 2, are expected to occur rarely, if ever, during the project. However, under these circumstances, peak noise levels could exceed 90 dBA within 200 feet of the construction area, depending on equipment being used.

Although noise levels would be quite loud in the immediate area, the intermittent nature of peak construction noise levels would not create the steady noise level conditions for an extended duration that could lead to hearing damage. Construction workers would follow standard Federal Occupational Safety and Health Administration (OSHA) requirements to prevent hearing damage.

Areas that could be most affected by noise from construction include those closest to the construction footprint, including the residential areas around both of the Action Alternative sites, and the schools adjacent or near the St. Joseph Site (adjacent east). Indoor noise levels would be expected to be 15-25 decibels lower than outdoor levels.

Indirect impacts include noise from workers commuting and material transport. Area traffic volumes and noise levels would increase slightly as construction employees commute to and from work at the project area, and delivery and service vehicles (including trucks of various sizes) transit to and from the site. Because trucks are present during most phases of construction and would enter and exit the site via local thoroughfares, truck noises tend to impact more people over a wider area. For this Proposed Action, persons in the residential areas near the Action Alternative sites would experience temporary increases in traffic noise during day-time hours. These effects are not considered significant because they would be temporary and similar to existing traffic noise levels in the area.

Table 3. Peak Noise Levels Expected from Typical Construction Equipment

Source	Peak Noise Level (dBA, attenuated)							
	Distance from Source (feet)							
	0	50	100	200	400	1,000	1,700	2,500
Heavy Truck	95	84-89	78-93	72-77	66-71	58-63	54-59	50-55
Dump Truck	108	88	82	76	70	62	58	54
Concrete Mixer	108	85	79	73	67	59	55	51
Jack-hammer	108	88	82	76	70	62	58	54
Scraper	93	80-89	74-82	68-77	60-71	54-63	50-59	46-55
Bulldozer	107	87-102	81-96	75-90	69-84	61-76	57-72	53-68
Generator	96	76	70	64	58	50	46	42
Crane	104	75-88	69-82	63-76	55-70	49-62	45-48	41-54
Loader	104	73-86	67-80	61-74	55-68	47-60	43-56	39-52
Grader	108	88-91	82-85	76-79	70-73	62-65	58-61	54-57
Pile driver	105	95	89	83	77	69	65	61
Forklift	100	95	89	83	77	69	65	61

Worst-Case Combined Peak Noise Level (Bulldozer, Jackhammer, Scraper)					
Combined Peak Noise Level	Distance from Source (feet)				
	50	100	200	¼ Mile	½ Mile
	103	97	91	74	68

Source: Tipler 1976

Proposed operational activities at the new VAMC would include vehicle traffic to and from the site. This activity would not produce excessive noise, and would not produce a significant adverse noise impact on surrounding land uses.

3.8.2 Effects of the No Action Alternative

Under the No Action Alternative, the noise environment surrounding the Action Alternative sites would not change. The noise environment of the Action Alternative sites would not be altered by activities of VA; however, the likely ultimate development of these sites by others would produce similar construction and operational noise impacts as identified under the Proposed Action.

3.8.3 Mitigation / Management Measures

No project-specific mitigation measures are required. Implementing BMPs to reduce noise generated during construction would further minimize the potential impacts on the local noise environment. To minimize the potential for adverse, short-term noise impacts, the construction contractor would implement the following typical noise control BMPs, as applicable. These measures would be briefed to the contractor at the construction kick-off meeting, and daily at tailgate safety meetings. The onsite construction manager would be responsible to immediately address noise issues, if they arise.

General Construction Noise

- Comply with, to the extent practical, the Louisville Noise Ordinance (Chapter 99 of the General Regulations).
- Do not conduct construction activities between the hours of 9:00 p.m. and 7:00 a.m.
- Coordinate proposed construction activities in advance with adjacent sensitive receptors. Let the local residents know what operations would be occurring at what times including when they would start and when they would finish each day. Post signage, updated daily, at the entry points of the site providing current construction information, including schedule and activity.
- Limit, to the extent possible, construction and associated heavy truck traffic to occur between 7:00 am and 5:00 pm on Monday through Friday, or during normal, weekday, work hours. This measure would reduce noise impacts during sensitive night-time hours.
- Locate stationary equipment as far away from sensitive receptors as possible.
- Select material transportation routes as far away from sensitive receptors as possible.
- Shut down noise-generating heavy equipment when it is not needed.
- Maintain noisy equipment per manufacturer's recommendations.
- Encourage construction personnel to operate equipment in the quietest manner practicable (e.g., speed restrictions, retarder brake restrictions, engine speed restrictions, etc.).

Blasting (if necessary)

- Comply with, to the extent practical, the KAR Revised Statute 350.330 for blasting.
- Limit blasting to the absolute minimum amount of time and number of episodes required, as applicable.
- Limit the charges used to the minimum required to achieve the results required, as applicable.
- Implement an aggressive, proactive public information campaign to notify receptors within at least a 0.25-mile radius of the site, as applicable. Initial notification should be made no later than two weeks prior to the scheduled blasting events. In addition, notification should be made each day blasting is scheduled, before blasting occurs. Notification should include the specific times blasting would occur, and what the receptor should expect to experience in terms of noise level, vibration, number of events, and duration. Blasting events should be posted on the entry signage during construction, described above. This advance notification would allow receptors to temporarily re-locate sensitive individuals, or prepare them for the event(s).

Implementation of these BMPs would reduce the potential for short-term adverse noise impacts to acceptable levels, notably for nearby sensitive receptors. Specific noise management measures will be developed as part of the future SEA.

3.9 Land Use

Preferred Action Alternative

Based on a review of historical aerial photographs, the Brownsboro Site was farmland with an associated residence and outbuilding in the northwestern portion from at least 1937 to the

1990s, and has been vacant, unimproved grassy land with scattered trees in the northwestern portion where a farmstead was formerly located, since the late 1990s. The Louisville Planning and Design Department (LPDD) is responsible for long-range planning and zoning. According to the LPDD, the Brownsboro Site is currently zoned Planned Development District (PD). The Brownsboro Site was rezoned PD in 2007 based on the site owner's plans to construct a mixed-use development, including a six-story hotel, commercial buildings, and multi-family housing at the site. The Proposed VAMC is not specifically included in the approved uses for the zoning code, but the PD District is designed to promote diversity and integration of uses and structures in a planned development through flexible design standards.

The neighboring properties are currently zoned as residential (R3, R4, and R5), commercial (C1), and Right-of-Way (ROW). The current zoning classifications for the Brownsboro Site and the surrounding properties are shown on Figure 14.

Alternate Action Alternative

Based on a review of historical aerial photographs for the St. Joseph Site vicinity, the site has been farmland since at least 1937. Dilapidated structures associated with a former farmstead remained in the northwestern portion of the site until late 2011. According to the LPDD, the St. Joseph Site is currently zoned Residential Single Family District (R4). The Proposed VAMC is not specifically included in the approved uses for this zoning code; however, certain uses may be permitted in this district upon the granting of a Conditional Use Permit by the Board of Zoning Adjustment.

The neighboring properties are currently zoned as residential (R4 and R6, and R7) and ROW. The current zoning classifications for the St. Joseph Site and the surrounding properties are shown on Figure 15.

3.9.1 Effects of the Action Alternatives

Acquisition of either of the Action Alternative Sites by VA would produce no direct land use effects. However, future development of a new VAMC may or may not have adverse land use effects.

Implementation of the Proposed Action at either of the Action Alternative sites would not result in adverse land use effects; the VAMC would be developed in consonance with local zoning and plans. VA would work with the City of Louisville to integrate design features, to the extent practical, so that the proposed new VAMC would be designed and constructed in consonance with other area developments. These measures would be fully developed as part of the subsequent, site-specific SEA, concurrent with the site design efforts.

The current land use designation of the Brownsboro Site (Planned Development) is designed to promote diversity and integration of uses and structures in a planned development through flexible design standards. In addition, no adverse onsite building function and architecture impacts are anticipated. The current owners of the Brownsboro Site have communicated to the surrounding residential neighborhoods of their intent to develop the Brownsboro Site as a mixed-use development, with a mixture of commercial and residential buildings, including a six-story hotel identified during multiple design charette meetings. In addition, the mixed-use development has been approved by pertinent State and local agencies.

The VAMC would be developed generally consistent with local zoning. VA would work with the City of Louisville to integrate design features, to the extent practical, so that the proposed new VAMC would be designed and constructed consistent with other area developments. These measures would be fully developed as part of the subsequent SEA, concurrent with the site design efforts.

Short-term dust and noise from construction have the potential to adversely affect adjacent offsite areas and land uses, notably including nearby sensitive receptors. BMPs would be used to reduce construction dust and noise emissions to the maximum extent possible, in accordance with local ordinances and requirements; no long-term noise or dust effects are anticipated. Implementation of these BMPs and compliance with local requirements would result in a short-term, less-than-significant effects to adjacent land uses. Potential air quality and noise effects to offsite land uses and sensitive receptors are discussed in Sections 3.3 and 3.8.

3.9.2 Effects of the No Action Alternative

Under the No Action Alternative, no land use impacts due to VA's Proposed Action would occur. The existing current Louisville VAMC would continue to function in its current capacity. The Action Alternative sites would likely be developed in accordance with local zoning regulations. The land use impacts (and associated community benefits) of any future proposed site development would depend upon the use proposed.

3.9.3 Mitigation / Management Measures

No mitigation or management measures are required.

FIGURE 14
BROWNSBORO SITE
ZONING MAP

PROGRAMMATIC ENVIRONMENTAL ASSESSMENT
PROPOSED VAMC
LOUISVILLE, KENTUCKY

PREPARED FOR

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WASHINGTON, D.C.

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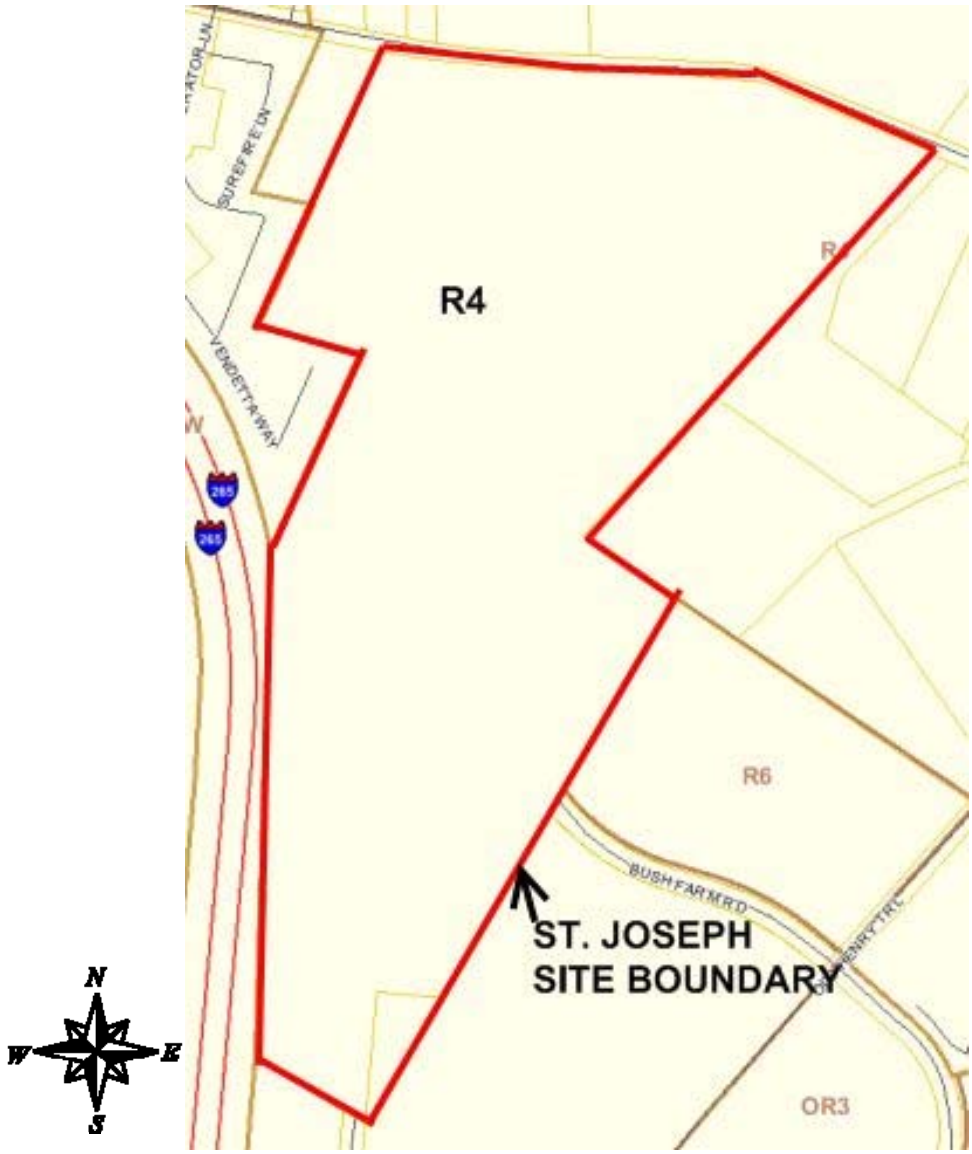

FIGURE 15
ST. JOSEPH SITE
ZONING MAP

PROGRAMMATIC ENVIRONMENTAL ASSESSMENT
PROPOSED VAMC
LOUISVILLE, KENTUCKY

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3.10 Wetlands, Floodplains, and Coastal Zone Management

3.10.1 Wetlands

Preferred Action Alternative

Information provided by the City of Louisville indicated an area of potential wetlands is located in the northern portion of the Brownsboro Site. However, the USFWS Online Wetland Mapper did not identify any wetlands on the site.

To further evaluate potential wetlands at the Brownsboro Site, a Wetland Delineation of the Proposed Midlands Development (a.k.a. Brownsboro Site) was prepared by URS on behalf of the Site owners, dated July 8, 2011. In addition, TTL prepared a Wetlands Determination on behalf of VA, dated February 15, 2012 (see Appendix C).

These investigations indicated that the soils in the northern portion of the Brownsboro Site (Lawrence silt loam) are classified as "partially hydric", or soils that may exhibit some characteristics of hydric soils under the necessary conditions (i.e. in conjunction with wetland hydrology). This soil classification is likely the reason that the Louisville/Jefferson County Information Consortium (LOJIC) identified a potential wetland at the Site. However, partially hydric soils, themselves, are not necessarily indicative of the presence of wetlands. The other necessary criteria to be considered an USACE jurisdictional wetland (hydrophytic vegetation and wetland hydrology) were not identified at the Brownsboro Site by either URS or TTL. Therefore, both URS and TTL concluded that no wetlands are present at the Brownsboro Site.

Alternate Action Alternative

Information provided by the USFWS Online Wetland Mapper indicates that the St. Joseph Site is identified on the NWI as containing mapped wetlands, including two small open water systems in the northwestern portion of the site. In addition, the USACE indicated that "Waters of the US" may be located on the St. Joseph Site. A jurisdictional determination would be required for the potential "Waters of the US" on the St. Joseph Site.

TTL prepared a Wetlands Delineation of the St. Joseph Site on behalf of VA in accordance with the USACE Wetlands Delineation Manual and the USACE Regional Supplement, dated February 17, 2012 (see Appendix C). The following is a summary of the wetlands determination and delineation findings:

- Four potential wetland areas [Wetland Area 1 (W1), Wetland Area 2 (W2), Wetland Area 3 (W3), and Wetland Area 4 (W4)] were identified on or adjacent to the St. Joseph Site. In addition, a channelized stream (Floyds Fork Tributary) crosses the northern portion of the Site from west to east. A small perennial stream originates near the southern boundary of the Site and flows from east to west. Areas W1 and W2 are located in the northwestern portion of the Site and are associated with the Floyds Fork Tributary. Area W3 is located in the central portion of the Site and Area W4 is located off-site, along the southern boundary of the Site. The potential wetland areas are shown on Figure 12.

- Area W1, a depression pond, is approximately 0.08 acres and does not meet the USACE criteria to be classified as a wetland. However, Area W1 is located approximately 200 feet upgradient from the perennial head of Floyds Fork Tributary and an intermittent drainage swale connects Area W1 to Floyds Fork Tributary. As a result, Area W1 likely includes a subsurface hydraulic connection to Floyds Fork Tributary based on its proximity and topographically upgradient location, and is considered to be a Water of the US

- Area W2 is approximately 0.15 acre and meets the USACE criteria to be classified as a wetland. Area W2, a depressional wetland, also included a direct, permanent surface water connection to Floyds Fork Tributary. As such, Area W2 is considered to be a Water of the US and a jurisdictional wetland.

- Area W3 is approximately 0.10 acre and meets the USACE criteria to be classified as a wetland. However, Area W3, a depressional wetland, did not include a semi-permanent surface water connection to other surface water bodies and soil saturation was not observed within 16 inches of the ground surface within the intermittent drainage swale adjacent to the north and northeast of Area W3. As such, Area W3 is considered to be an isolated wetland, not a Water of the US, and not under the jurisdiction of the USACE, KDEP, or City of Louisville.

- Area W4 is located off-site along the southern boundary of the Site and is hydraulically connected to an on-site perennial stream located along the southern boundary. Area W4 is approximately 0.25 acre and meets the USACE criteria to be classified as a wetland. As result of its connection to a perennial stream, Area W4 is considered to be a Water of the US and a jurisdictional wetland.

3.10.2 Floodplains

Preferred Action Alternative

According to available City of Louisville and Federal Emergency Management Agency (FEMA) floodplain mapping, the Brownsboro Site and most of the surrounding areas are not located in the 100-year or 500-year floodplain (FEMA Flood Insurance Rate Map No. 21111C0029E, dated December 5, 2006).

Alternate Action Alternative

According to available City of Louisville and FEMA floodplain mapping, the St. Joseph Site and most of the surrounding areas are not located in the 100-year or 500-year floodplain (FEMA Flood Insurance Rate Map No. 21111C0021E and 21111C0034E, both dated December 5, 2006).

3.10.3 Coastal Zone

The Coastal Zone Management Act (CZMA) was promulgated to control nonpoint pollution sources that affect coastal water quality. The CZMA of 1990, as amended (16 USC 1451 *et seq.*) encourages States to preserve, protect, develop, and where possible, restore or enhance valuable natural coastal resources such as wetlands, floodplains, estuaries, beaches, dunes, barrier islands, and coral reefs, as well as the fish and wildlife using those habitats. The State of Kentucky does not participate in the National Coastal Zone Management Program (CZMP). The Action Alternative sites are not included in a designated coastal zone (NOAA 2011).

3.10.4 Effects of the Action Alternatives

Preferred Action Alternative

No wetlands were identified on the Brownsboro Site. The Brownsboro Site is not included in the 100-year or 500-year floodplain or a designated coastal zone. No impacts to wetlands, floodplains, or coastal zones would occur with the implementation of the Preferred Action Alternative.

Alternate Action Alternative

The St. Joseph Site is not included in the 100-year or 500-year floodplain or a designated coastal zone. No impacts to floodplains or coastal zones would occur with the implementation of the Alternate Action Alternative.

Two small wetlands in the northern portion of the St. Joseph Site (Areas W1 and W2) and a small wetland located to the south of the Site have been identified as likely jurisdictional wetlands and/or Waters of the US Therefore, the Alternate Action Alternative could result in direct or indirect adverse impacts to wetlands and Waters of the US. However as explained in 3.10.6, VA anticipates that through environmentally sensitive site design and following good engineering practices, as well as consultation with pertinent Federal, State, and local regulatory agencies (as discussed in Section 3.10.6), these potential impacts would be avoided or managed to less-than-significant levels. Wetlands/Waters of the US would be avoided to the extent possible.

3.10.5 Effects of the No Action Alternative

Under the No Action Alternative, no construction by VA would occur. No impacts to water resources at either of the Action Alternative sites would occur. However, should the Action Alternative sites ultimately be developed by others, impacts similar to those identified under the Proposed Action would occur.

3.10.6 Mitigation / Management Measures

Preferred Action Alternative

No mitigation or management measures are required for the implementation of the Preferred Action Alternative. Implementing stormwater management and erosion and sedimentation control BMP as described in Section 3.6.5 would prevent significant indirect impacts to off-site wetlands and surface waters.

Alternate Action Alternative

If the Alternate Action Alternative is selected, VA would implement the following mitigation (if necessary), avoidance, and management measures to reduce potential adverse effects to wetlands and Waters of the US to acceptable, less-than-significant levels. These measures would be more fully developed as part of the subsequent, site-specific Tiered SEA, concurrent with the design efforts. VA anticipates that through environmentally sensitive site design and following good engineering practices, wetlands/Waters of the US would be avoided.

VA would avoid onsite wetlands and surface water resources to the extent possible during the site design process. VA would consult with, and obtain the necessary permit(s) from the USACE and KDEP under Sections 401 and 404 of the Clean Water Act, to minimize adverse effects to jurisdictional wetlands and surface water resources prior to construction. VA anticipates that final VAMC design would maintain a buffer of undisturbed land around the majority of the identified wetlands and surface water resources. However, in those cases where impacts to wetlands and Water of the US cannot be avoided, VA would obtain and comply with all necessary permits from Federal and State agencies.

To minimize potential adverse impacts from the implementation of the Alternate Action Alternative, VA would:

- Obtain a jurisdictional determination from the USACE regarding identified wetlands and Waters of the US.
- Develop a site design that avoids interaction with onsite and adjacent wetlands and surface waters.
- Obtain and execute any requirements of necessary permits from the appropriate Federal and State agencies under Sections 401 and 404 of the Clean Water Act.
- Develop a site plan that provides a buffer around jurisdictional wetlands and surface waters in accordance with the City of Louisville and Jefferson County Waterways and Wetlands Protection Ordinance (Land Development Code, Chapter 4, Part 8).

3.11 Socioeconomics

The following subsections identify and describe the socioeconomic environment of Louisville, Jefferson County, and Kentucky. Presented data provide an understanding of the socioeconomic factors that have developed the area. Socioeconomic areas of discussion include the local demographics of the area, regional and local economy, local housing, and local recreation activities. Data used in preparing this section were collected from the 2009 Census of Population and Housing (US Census Bureau), subsequent US Census Bureau data, and the US Department of Commerce Bureau of Economic Analysis (BEA).

3.11.1 Demographics

Louisville's estimated population in 2006 was 554,496 citizens (US Census Bureau 2011). Jefferson County's estimated population in 2009 was 721,594 citizens (US Census Bureau 2011). The estimated population total for Kentucky was 4,314,113 residents in 2009 (US Census Bureau 2010).

Population totals for Louisville, Jefferson County, and Kentucky have increased from 2000 to 2009 (see Table 4).

Table 4. Population Totals for Louisville, Jefferson County, and Kentucky

Area	1990	2000	2009
Kentucky	3,685,296	4,041,769	4,314,113
Jefferson County	664,937	693,607	721,594
Louisville	N/A	551,169*	554,496*

Sources: US Census Bureau, 2009 Census, Profile of General Demographic Characteristics.
* – 2006 Census, Profile of General Demographic Characteristics.

Baseline information identified that Louisville and Jefferson County have a higher African-American population and lower white populations than the State of Kentucky; otherwise, the City has similar minority populations as the State of Kentucky as a whole (Table 5).

Table 5. Regional Population by Race and Ethnicity

Area	All Individuals	White (%)	African-American (%)	American Indian and Alaska Native (%)	Asian or Pacific Islander (%)	Other Race (%)	Hispanic or Latino* (%)
Kentucky	4,314,113	89.6	7.9	0.3	1.2	1.1	2.7
Jefferson County	721,594	75.8	20.4	0.4	2.1	1.4	3.6
Louisville	554,496*	62.9*	33.0*	0.2*	1.4*	1.7*	1.9*

Note: People of Hispanic or Latino origin may be of any race.
Statistics taken from the 2006 census shows that 80.5% of Puerto Ricans have Spanish or white origin.
Note: The six percentages reported by the US Census Bureau for each geographic region may total more than 100% because individuals may report more than one race.
Source: US Census Bureau, 2009 Census, Profile of General Demographic Characteristics. * – 2000 Census, Profile of General Demographic Characteristics.

Louisville has a similar high school graduation rate as the State of Kentucky, but a lower rate than Jefferson County. Both Louisville and Jefferson County have higher Bachelor's degree rates than the State of Kentucky. Educational attainment data are presented in Table 6.

Table 6. Educational Attainment: Louisville, Jefferson County, and Kentucky

Educational Attainment	Louisville (%)	Jefferson County (%)	Kentucky (%)
High school graduate (incl. equivalency)	76.1*	81.8	74.1
Bachelor's degree or higher	21.3*	24.8	17.1

Source: US Census Bureau Profile of General Demographic Characteristics, 2009. * – 2000 Census, Profile of General Demographic Characteristics.

3.11.2 Employment and Income

Louisville's and Jefferson County's employment is largely centered on trade, transportation, and utilities, followed by education and health services, and government (Bureau of Labor Statistics 2011).

The unemployment rate for Louisville is similar to that of Jefferson County and Kentucky (see Table 7). The median household income for residents of Louisville is lower than that of the rest of Jefferson County and Kentucky as a whole. Also, the population below the poverty level for Louisville is higher than Jefferson County and the rest of Kentucky.

Table 7. Regional Income					
Area	Number of Households	Median Household Income ($)	Per Capita Income ($)	Population Below Poverty Level (%)	Unemployment Rate (%) 2010
Kentucky	1,590,647	41,489*	18,093	17.3*	10.2
Jefferson County	287,012	46,745*	22,352	14.6*	10.2
Louisville	111,414	28,843	18,193	21.6	10.2
Source: 1999-2000 Census, Profile of General Demographic Characteristics. * 2008 Census, Profile of General Demographic Characteristics.					

3.11.3 Commuting Patterns

Residents of Louisville are largely dependent on personal automobiles for transportation to and from work. Other methods of transit include carpooling and walking. The average commuting times in Louisville was 21.9 minutes in 2000. More recent average commuting time was not available.

Public transportation for the greater Louisville area is provided by Transit Authority of River City (TARC).

3.11.4 Housing

Rates of owner-occupied housing in Louisville is lower than Jefferson County which is lower than the State of Kentucky as a whole. In addition, the median values of housing in Louisville are similar to that of the State of Kentucky, but lower than the rest of Jefferson County (see Table 8).

Table 8. Regional Housing Characteristics						
Area	Total Housing Units	Occupied (%)	Owner-Occupied (%)	Median Value ($)	Renter-Occupied (%)	Median Contract Rent ($)
Kentucky	1,934,973*	84.6	70.8	86,700	N/A	N/A
Jefferson County	332,813*	52.5	64.9	103,000	N/A	N/A
Louisville	121,275	N/A	52.5	82,300	N/A	N/A
Source: 2000 Census, Profile of General Demographic Characteristics. * – 2009 Census, Profile of General Demographic Characteristics.						

3.11.5 Protection of Children

Because children may suffer disproportionately from environmental health risks and safety risks, EO 13045, *Protection of Children From Environmental Health Risks and Safety Risks*, was introduced in 1997 to prioritize the identification and assessment of environmental health risks and safety risks that may affect children and to ensure that Federal agencies' policies, programs, activities, and standards address environmental risks and safety risks to children.

This section identifies the distribution of children and locations where numbers of children may be proportionately high (e.g., schools, childcare centers, family housing, etc.) in areas potentially affected by the Proposed Action.

Children are not regularly present around the sites. The percentage of the population under age 18 is similar within Louisville, Jefferson County, and the rest of Kentucky (see Table 9).

Table 9. Total Population Versus Population Under Age 18

Area	Total Population	Population Under 18	
		Number	Percent
Kentucky	4,314,113	1,013,817	23.5
Jefferson County	721,594	169,575	23.5
Louisville	554,496*	131,416*	23.7*

Source: US Census Bureau Profile of General Demographic Characteristics, 2009. * – 2000 Census, Profile of General Demographic Characteristics.

3.11.6 Effects of the Action Alternatives

Acquisition of either of the Action Alternative Sites by VA would produce no direct socioeconomic effects. In addition, future development of a new VAMC at either site is not anticipated have adverse socioeconomic effects.

Construction of the Proposed Action is anticipated to result in short-term and long-term, direct, positive socioeconomic impacts to local employment and personal income. Construction of the proposed new VAMC would potentially provide additional temporary construction jobs in the private sector, thus providing short-term socioeconomic benefit to the area. In addition, the operations of a larger new VAMC would provide long-term employment for the area. Increased development in the region would indirectly benefit the local economy through the spending of business and personal income generated from the construction and operation of the proposed facility. As such, a long-term, indirect, positive impact to the local economy is anticipated from operation of the facility. The Proposed Action would result in long-term positive socioeconomic impacts by providing a larger, replacement VAMC to US Veterans.

No health or safety risks to children are anticipated to result from construction or operation of the new VAMC. In addition, children would only be present at the site as visitors; all Veterans are above the age of 18. Construction areas would be secured to prevent unauthorized access by children from the nearby residential areas. The construction contractor would limit and control construction dust and noise as discussed in Sections 3.3 and 3.8, thereby minimizing adverse effects to children in the area.

3.11.7 Effects of the No Action Alternative

Implementation of the No Action Alternative would result in no construction and no increased short- or long-term economic benefit due to VA's action. Under this alternative, no new construction or replacement VAMC jobs would be created, and no additional incidental spending (e.g., at local restaurants, shops, and hotels) by an increased number of people potentially traveling to the new VAMC would occur.

Most importantly, the inability of VA to provide adequate medical facilities would result in a significant adverse, long-term, direct impact to US Veterans.

3.11.8 Mitigation / Management Measures

No project-specific mitigation or management measures are required.

3.12 Community Services

The Action Alternative sites are located within the Jefferson County Public School District (JCPSD). This school district includes 90 elementary schools, 24 middle schools, 21 high schools, 20 other learning centers, with more than 98,000 students (JCPSD 2011).

Preferred Action Alternative

The Louisville Metro Police Department, Eighth Division provides police protection to the Brownsboro Site and its vicinity. The Lyndon Fire Department District provides fire protection and emergency medical services to the Brownsboro Site and its vicinity. The KTC provides maintenance to primary roads and bridges in the vicinity of the Brownsboro Site. Jefferson County and the City of Louisville provide maintenance to secondary roads and bridges in the vicinity of the Brownsboro Site.

Ballard High School, Kammerer Middle School, Wilder Elementary School, and Herr Lane Kinder Care are located approximately 0.35-mile northeast and east of the Brownsboro Site. St. Albert the Great Catholic School is located approximately 0.50 miles southeast of the Brownboro Site. No other schools are located with 0.5 mile of the site (Google Earth 2012). The Louisville Tennis Club is located approximately 0.45-mile east of the Brownsboro Site. There are no other developed recreational facilities in the vicinity of the site.

There are four hospitals located within a five-mile radius of the Brownsboro Site: Jewish Hospital Medical Center East (3 miles south), Norton Suburban Hospital (3 miles south); the current Louisville VAMC (3.5 miles west), and Norton Brownsboro Hospital (4 miles northeast).

Alternate Action Alternative

The Louisville Metro Police Department, Eighth Division provides police protection to the St. Joseph Site and its vicinity. The Middletown Fire Department District provides fire protection and emergency medical services to the St. Joseph Site and its vicinity. The KTC provides maintenance to primary roads and bridges in the vicinity of the St. Joseph Site. Jefferson County and the City of Louisville provide maintenance to secondary roads and bridges in the vicinity of the St. Joseph Site.

Covenant Church and School (private school) is located adjacent to the east of the St. Joseph Site. No other schools are located with 0.5 mile of the site (Google Earth 2010). There are no developed recreational facilities in the vicinity of the site.

There are two hospitals located within a five-mile radius of the St. Joseph Site: Jewish Hospital Medical Center (0.25 mile southeast) and Baptist Eastpointe Hospital (0.25 mile west).

3.12.1 Effects of the Action Alternatives

Acquisition of either of the Action Alternative Sites by VA would produce no direct community services effects. In addition, future development of a new VAMC at either site is not anticipated have adverse community services effects.

No significant additional load is expected to be placed on the fire or police departments as the result of implementing the Proposed Action at either of the Action Alternative sites. Use of

other public or community services as a result of the proposed new VAMC is not expected. As such, the Proposed Action is expected to have a negligible impact on local public services.

3.12.2 Effects of the No Action Alternative

Under the No Action Alternative, no construction by VA would occur and no impacts to Community Services would be anticipated. Should the Action Alternative sites be developed in the future by others, community service impacts are likely to occur.

3.12.3 Mitigation / Management Measures

No project-specific mitigation or management measures are required.

3.13 Solid and Hazardous Materials

Hazardous and toxic materials or substances are generally defined as materials or substances that pose a risk (i.e., through either physical or chemical reactions) to human health or the environment. Regulated hazardous substances are identified through a number of Federal laws and regulations. The most comprehensive list is contained in 40 CFR 302, and identifies quantities of these substances, when released to the environment, that require notification to a Federal agency. Hazardous wastes, defined in 40 CFR 261.3, are considered hazardous substances. Generally, hazardous wastes are discarded materials (e.g., solids or liquids) not otherwise excluded by 40 CFR 261.4 that exhibit a hazardous characteristic (i.e., ignitable, corrosive, reactive, or toxic), or are specifically identified within 40 CFR 261. Petroleum products are specifically exempted from 40 CFR 302, but some are also generally considered hazardous substances due to their physical characteristics (i.e., especially fuel products), and their ability to impair natural resources.

The KDEP Division of Waste Management (DWM) stated that they do not have any comments regarding the Proposed Action and would provide comments after the site selection has been completed.

Preferred Action Alternative

TTL completed a reconnaissance visit of the Brownsboro Site in April 2011. The site is currently unimproved vacant, grassy land with scattered trees in the northwestern portion. No evidence of petroleum products or hazardous materials was identified at the site. In addition, no evidence of staining or odors was observed. No evidence of potential negative environmental impacts on the Brownsboro Site warranting further action or investigation was identified.

Linebach Funkhouser, Inc. (LFI) conducted a Phase I Environmental Site Assessment (ESA) of the Brownsboro Site on behalf of VA in November 2010. The Phase I ESA included a site reconnaissance, interviews with persons knowledgeable about the site, a review of historic information, and a review of local, State, and Federal environmental regulatory information for the site and surrounding area. The LFI Phase I ESA did not identify any recognized environmental conditions (RECs) associated with the Brownsboro Site.

Alternate Action Alternative

TTL completed a reconnaissance visit of the St. Joseph Site in April 2011. The site is currently unimproved farmland with limited wooded areas in the northwestern, central, and southern portions, and along the eastern boundary. No evidence of petroleum products or hazardous materials was identified at the site. In addition, no evidence of staining or odors was

observed. No evidence of potential negative environmental impacts on the St. Joseph Site warranting further action or investigation was identified.

LFI conducted a Phase I ESA of the St. Joseph Site on behalf of VA in November 2010. The LFI Phase I ESA did not identify any RECs associated with the St. Joseph Site.

3.13.1 Effects of the Action Alternatives

Acquisition of either of the Action Alternative Sites by VA would produce no direct solid and hazardous materials effects. However, future development of a new VAMC could have adverse solid and hazardous materials effects.

The Proposed Action would result in short-term, less-than-significant adverse impacts due to the increased presence and use of petroleum and hazardous substances during construction. During construction, an increase in construction vehicle traffic would increase the likelihood for release of vehicle operating fluids (e.g., oil, diesel, gasoline, antifreeze, etc.) and maintenance materials. As such, a less-than-significant, direct, short-term adverse impact is possible. Implementation of standard construction BMPs would serve to ensure this impact is further minimized.

No significant adverse long-term impacts during operation are anticipated; long-term operational solid and hazardous materials would be managed in accordance with VA's solid and hazardous materials SOPs and applicable Federal and State laws. The Proposed Action would not result in a substantial increase in the generation of solid or hazardous substances or wastes, increase the exposure of persons to hazardous or toxic substances, increase the presence of hazardous or toxic materials in the environment, or place substantial restrictions on property use due to hazardous waste, materials, or site remediation.

During construction, an increase in construction vehicle traffic would increase the likelihood for release of vehicle operating fluids (e.g., oil, diesel, gasoline, antifreeze, etc.) and maintenance materials. As such, a less-than-significant, direct, short-term adverse impact is possible. Implementation of standard construction BMPs would serve to ensure this impact is further minimized.

3.13.2 Effects of the No Action Alternative

Under the No Action Alternative, no construction by VA would occur and no petroleum and hazardous substances would be handled, and depending upon the use, no solid or hazardous wastes would be generated. Should the Action Alternative Sites be developed in the future by others, similar short- and long-term solid and hazardous materials impacts as realized under the Proposed Action could occur.

3.13.3 Mitigation / Management Measures

No mitigation measures are required. Construction effects would be minimized through BMPs; during operation, the Proposed Action would comply with existing VA SOPs and applicable Federal and State laws governing the use, generation, storage, or transportation of solid or hazardous materials.

3.14 Transportation and Parking

Preferred Action Alternative

The Brownsboro Site is located near the southeast corner of the I-264 (Watterson Expressway) and Brownsboro Road (US Route 42) interchange. Access to the Brownsboro Site

is currently provided from Brownsboro Road via Old Brownsboro Road (KY 22) along the northern site boundary. Brownsboro Road is generally an east-west oriented, five-lane paved urban principal arterial road. Old Brownsboro Road is a three-lane paved urban minor arterial road. Old Brownsboro Road turns north and connects with Brownsboro Road at the Brownsboro Road/Northfield Road intersection located approximately 400 feet north of the site. I-264 runs along the western boundary of the Brownsboro Site, but does not provide direct site access.

Public transportation is provided to the Brownsboro Site by the Transportation Authority of River City (TARC), Route 15 (Market Route). In addition, the Brownsboro Site is serviced by TARC Express Routes 49 (Westport Express) and 69 (Prospect Express).

Traffic management in Louisville and at the Brownsboro Site is the responsibility of the KTC and the City of Louisville. Under current conditions based on traffic counts collected in February 2011, Old Brownsboro Road, in the vicinity of the Brownsboro Site, operates below an acceptable Level of Service[1] (LOS) rating mainly due to the design of its intersection with Brownsboro Road and the clustered nature of surrounding commercial businesses. The PWA indicated that the KY 22/Brownsboro Road/I-264 interchange is extremely congested; however, a reconfiguration of the interchange by the KTC is scheduled to be completed by 2020 or earlier (see below).

KTC has a transportation improvement project planned for the Watterson Expressway (I-264) interchange with Brownsboro Road (US 42). Information related to the transportation improvement project was detailed in the I-264/US 42 Interchange Scoping Study prepared by Palmer Engineering, Inc. (Palmer) on behalf of KTC and dated March 2011. In the proposed KTC improvements [Alternative 1 Single Point Urban Interchange (SPUI 1)], each entrance and exit to and from I-264 would have dedicated right-hand and left-hand turn lanes to and from Brownsboro Road (US 42), with the addition of a second dedicated left-hand turn land from westbound Brownsboro Road (US 42) to westbound I-264. In addition, to address more regional traffic issues, KTC is also considering adding signalized connector roads between Brownsboro Road (US 42) and Old Brownsboro Road (Glenview Option), and Lime Kiln Lane and Brownsboro Road (Lime Kiln Option). KTC indicated that the new interchange configuration (Single Point Urban Interchange or SPUI) is planned to be designed beginning in 2013 and that the new interchange is expected to be completed by 2020, but may be expedited.

Along with these modifications, a new ramp will be constructed from the eastbound I-264 off-ramp directly to Old Brownsboro Road. This “slip ramp” will connect into Old Brownsboro Road at the proposed location for the entrance to the Brownsboro Site. This will eliminate the need for vehicles to turn right onto US 42 and immediately right again onto Old Brownsboro Road. The slip ramp construction is scheduled to be completed in 2012.

KTC indicated that the reconfigured interchange would likely alleviate current and future traffic congestion at both the highway access point (I-264 and Brownsboro Road) and farther down Old Brownsboro Road, and would likely be able to accommodate the proposed VAMC without significant, additional modifications to roadways.

BTM Engineering, Inc. (BTM) prepared a Traffic Impact Analysis (TIA) for the Brownsboro Site on behalf of VA in March 2012. The BTM TIA indicated that traffic in the Brownsboro Site area currently operates below an acceptable LOS, particularly at the intersection of US 42 and Northfield Drive/Old Brownsboro Road. BTM indicated that additional traffic associated with the proposed VAMC would further increase these delays and could have a significant adverse effect on traffic. The BTM TIA included an analysis of roadway/intersection improvements that could mitigate the adverse effects caused by the proposed VAMC and indicated that the potential significant adverse traffic impacts associated with the VAMC could be mitigated.

VA retained Oculus, Inc. (Oculus) and Olsson Associates (OA) to further evaluate existing and future projected traffic conditions at the Brownsboro Site and possible mitigation measures for the traffic associated with the proposed VAMC. The Oculus/OA Draft Traffic Impact Study (TIS), dated May 29, 2012, is provided in Appendix C. OA evaluated the February 2011 traffic count data and concluded that it was acceptable for the TIS. However, OA gathered additional traffic counts in May 2012 to supplement the 2011 data.

The OA TIS evaluated peak AM and PM traffic conditions (i.e., rush hour) for five scenarios:

- Projected 2012 conditions including the slip ramp that is scheduled to be constructed by December 2012 (but no other roadway improvements).
- Projected 2018 conditions including the slip ramp (but no other roadway improvements) without the proposed VAMC.
- Projected 2018 conditions including the slip ramp (but no other roadway improvements) plus the additional traffic associated with the proposed VAMC.
- Projected 2018 conditions including the slip ramp and other roadway improvements (but not the SPUI interchange) plus the additional traffic associated with the proposed VAMC.
- Projected 2018 conditions including planned slip ramp and other roadway improvements (including the SPUI interchange) plus the additional traffic associated with the proposed VAMC.

The results of the TIS for the Brownsboro Site are summarized in Table 10.

Table 10. Traffic Impact Study Results – Brownsboro Site

Scenario	Intersection	Overall Intersection Level of Service (LOS)	
		AM Peak	PM Peak
2012 With Planned Slip Ramp	Brownsboro Road (US 42) and I-264 WB	C	D
	Brownsboro Road (US 42) and I-264 EB	C	D
	Brownsboro Road (US 42) & Old Brownsboro Road (KY 22)/Northfield Drive	E	C
	Old Brownsboro Road (KY 22) and I-264 EB Slip Ramp	B	B
	Old Brownsboro Road (KY 22) and Herr Lane/Lime Kiln Lane	C	C
	Brownsboro Road (US 42) and Lime Kiln Lane	C	C
	Brownsboro Road (US 42) and Rudy Lane	C	D
	Brownsboro Road (US 42) and Holiday Manor Center	A	B

Table 10. Traffic Impact Study Results – Brownsboro Site (continued)

Scenario	Intersection	Overall Intersection Level of Service (LOS)	
		AM Peak	PM Peak
Projected 2018 Without VAMC Or Other Improvements	Brownsboro Road (US 42) and I-264 WB	D	D
	Brownsboro Road (US 42) and I-264 EB	C	D
	Brownsboro Road (US 42) & Old Brownsboro Road (KY 22)/Northfield Drive	E	C
	Old Brownsboro Road (KY 22) and I-264 EB Slip Ramp	B	C
	Old Brownsboro Road (KY 22) and Herr Lane/Lime Kiln Lane	D	C
	Brownsboro Road (US 42) and Lime Kiln Lane	C	C
	Brownsboro Road (US 42) and Rudy Lane	C	D
	Brownsboro Road (US 42) and Holiday Manor Center	A	B
Projected 2018 With VAMC With Improvements	Brownsboro Road (US 42) and I-264 WB	E	E
	Brownsboro Road (US 42) and I-264 EB	D	D
	Brownsboro Road (US 42) & Old Brownsboro Road (KY 22)/Northfield Drive	D	C
	Old Brownsboro Road (KY 22) and I-264 EB Slip Ramp	C	D
	Old Brownsboro Road (KY 22) and Herr Lane/Lime Kiln Lane	D	C
	Brownsboro Road (US 42) and Lime Kiln Lane	D	C
	Brownsboro Road (US 42) and Rudy Lane	C	D
	Brownsboro Road (US 42) and Holiday Manor Center	A	B
Projected 2018 With VAMC With Improvements and SPUI	Brownsboro Road (US 42) and I-264 WB Exit Ramp	C	D
	Brownsboro Road (US 42) and I-264 EB Exit Ramp		
	Brownsboro Road (US 42) & Old Brownsboro Road (KY 22)/Northfield Drive	C	C
	Old Brownsboro Road (KY 22) and I-264 EB Slip Ramp	C	D
	Old Brownsboro Road (KY 22) and Herr Lane/Lime Kiln Lane	D	C
	Brownsboro Road (US 42) and Lime Kiln Lane	D	C
	Brownsboro Road (US 42) and Rudy Lane	C	D
	Brownsboro Road (US 42) and Holiday Manor Center	B	B

Source: Oculus, Inc. and Olsson Associates, Traffic Impact Study, May 2012

[1] **Level of Service** – LOS represents a set of qualitative descriptions of a transportation system's performance. The Federal Highway Administration Highway Capacity Manual defines levels of service for intersections and highway segments, with ratings that range from A (best) to F (worst). Generally, a LOS of D or higher is considered acceptable by transportation planning agencies, including KTC.

OA consulted with KTC during the design of the TIS. KTC stated that traffic signal controlled intersections should be LOS D or better for the overall intersection. Some individual movements/lanes may operate at a lower LOS; however, the intersection as a whole should operate as a D or better.

The TIS stated that the projected 2012 and 2018 (without the VAMC) overall LOSs for the studied intersections are D or better with the exception of the intersection of Brownsboro Road (US 42) and Northfield Drive/Old Brownsboro Road.

OA indicated that the Brownsboro Road (US 42) intersection at the westbound Watterson Expressway (I-264) ramps for the AM and PM peaks has a projected 2012 overall LOS C (AM peak) and LOS D (PM peak), with individual lane failings (i.e., lanes with LOS F) in the AM (two lanes) and PM (one lane). The modeled 2018 conditions for this intersection (without the VAMC) are both LOS D, with two AM and one PM lane failings.

OA stated that the projected 2012 levels of service for the Brownsboro Road (US 42) intersection at the eastbound Watterson Expressway (I-264) ramps for the AM and PM peaks are C and D, respectively, with no lane failures. The modeled 2018 conditions for this intersection (without the VAMC) are also LOS C (AM peak) and LOS D (PM peak) with one lane failure during each period.

OA indicated that at the intersection of Brownsboro Road (US 42) with Northfield Drive/Old Brownsboro Road, there are some existing operational deficiencies, even with the planned 2012 slip ramp. The projected 2012 AM peak has an overall LOS E, and the PM peak has a LOS C. The modeled 2018 conditions without the VAMC are similar (AM peak = LOS E, PM peak = LOS C) with three individual lane failures.

OA stated that the Old Brownsboro Road (KY 22) intersection at Herr Lane/Lime Kiln Lane has a projected 2012 overall LOS C for the AM and PM peaks, with no individual lane failings. Modeled 2018 conditions for this intersection (without the VAMC) are LOS D (AM peak) and LOC C (PM peak) with no lane failings.

OA indicated that the intersection of Old Brownsboro Road and Warrington Way is an unsignalized intersection; therefore, it does not yield overall levels of service. Traffic exiting Warrington Way operates at LOS F for the existing and 2018 growth conditions, without the VAMC.

OA indicated that the Brownsboro Road (US 42) intersection at Lime Kiln Lane for the AM and PM peaks has a projected 2012 overall LOS C, with one (AM) lane failing. The modeled 2018 conditions for this intersection (without the VAMC) for the AM and PM peaks also both have overall LOS C, with one AM and one PM lane failing.

OA stated that the Brownsboro Road (US 42) intersection at Rudy Lane has a projected 2012 overall LOS C (AM peak) and LOS D (PM peak) with one PM peak lane failure. The modeled 2018 conditions for this intersection (without the VAMC) are also LOS C (AM peak) and LOS D (PM peak) with no individual lane failures.

OA indicated that the Brownsboro Road (US 42) intersection at Holiday Manor Center for the AM and PM peaks have a projected 2012 overall LOS A and LOS B, respectively, with no individual lane failing. The modeled 2018 conditions for this intersection (without the VAMC) are also LOS A (AM peak) and LOS B (PM peak) with no individual lane failures.

Alternate Action Alternative

The St. Joseph Site is located along the east side of I-265 (Gene Snyder Freeway), between the Old Henry Road (KY 3084) and La Grange Road (KY 146) interchanges. Access to the St. Joseph Site is currently provided directly from Factory Lane along the northern site boundary. Factory Lane is generally an east-west oriented, two-lane paved urban minor arterial road that is approximately 1.5 miles long and connects La Grange Road to the west with Old Henry Road to the east. La Grange Road is a five-lane urban arterial road; Old Henry Road is an urban minor arterial road and is five-lanes wide in the vicinity of the I-265 interchange. East of Bush Farm Road, Old Henry Road changes to a two-lane urban collector road. I-265 runs along the western boundary of the St. Joseph Site, but does not provide direct site access. Traffic management in Louisville and at the St. Joseph Site is the responsibility of the KTC and the City of Louisville.

KTC has a major transportation improvement project planned for Old Henry Road. The Old Henry Road Improvement and Extension Project is scheduled to be complete in approximately 2015. The project would realign and widen Old Henry Road to a three-lane section east of Bush Farm Road and extend it beyond Factory Lane to KY 362 (Ash Avenue). The three-lane section would be one lane in each direction with a two-way left turn lane in the middle. The new route would provide better access to the interchange for vehicles traveling from Oldham County, Shelby County, and far eastern Jefferson County. The project would also provide traffic improvements on the congested LaGrange Road. The new alignment would fix the substandard super-elevation near Bush Farm Road and the 90 degree curve near Factory Lane. Therefore, the intersections of Old Henry Road with Bush Farm Road and Factory Lane would be completely reconstructed. Preliminary designs for these intersections have not been completed at this time, so the exact geometry is unknown. KTC has identified, however, that the intersection of Old Henry Road and Factory Lane would be completely reconfigured so that Factory Lane would "T" into a straightened Old Henry Road (BTM 2012).

Public transportation is not currently provided to the St. Joseph Site by the TARC. The nearest public transportation access point is located at the Baptist Eastpointe Hospital complex (Route 31/Middletown Route), across I-265 to the west of the St. Joseph Site.

BTM prepared a TIA for the St. Joseph Site on behalf of VA in March 2012 (Appendix C). The TIA evaluated peak AM and PM traffic conditions for three scenarios: the current conditions based on 2012 traffic counts collected by BTM; the projected 2018 conditions including the planned KTC roadway improvements (but without the proposed VAMC); and the projected 2018 conditions including the planned KTC improvements plus the additional traffic associated with the proposed VAMC. The results of the TIA for the St. Joseph Site are summarized in Table 11.

Table 11. Traffic Impact Analysis Results – St. Joseph Site

Scenario	Intersection	Overall Intersection Level of Service (LOS)	
		AM Peak	PM Peak
Current (2012)	Southbound I-265 Ramps and La Grange Road (KY 146)	C	D
	Factory Lane/Chamberlain Lane and La Grange Road (KY 146)	E	C
	Factory Lane and Old Henry Road	B	C
	Bush Farm Road and Old Henry Road	C	B
	Northbound I-265 Ramps and Old Henry Road	E	C

Projected 2018 Without VAMC	Southbound I-265 Ramps and La Grange Road (KY 146)	C	D
	Factory Lane/Chamberlain Lane and La Grange Road (KY 146)	F	D
	Factory Lane and Old Henry Road	C *	C *
	Bush Farm Road and Old Henry Road	F	C
	Northbound I-265 Ramps and Old Henry Road	F	D
Projected 2018 With VAMC	Southbound I-265 Ramps and La Grange Road (KY 146)	C	D
	Factory Lane/Chamberlain Lane and La Grange Road (KY 146)	F	E
	Factory Lane and Old Henry Road	D *	C *
	Bush Farm Road and Old Henry Road	F	D
	Northbound I-265 Ramps and Old Henry Road	F	D

* KTC's planned configuration for intersection unknown, modeled assuming that the intersection will be signalized
Source: BTM Engineering, Inc., Traffic Impact Analysis, March 2012

BTM stated that the existing levels of service for the southbound I-265 at LaGrange Road intersection for the AM and PM peaks are LOS C and LOS D, respectively, with no lane failings. Modeled 2018 conditions for this intersection (without the VAMC) are also LOS C and LOS D.

BTM indicated that the existing levels of service for the LaGrange Road intersection at Factory Lane/Chamberlain Lane for the AM and PM peaks are LOS E and C, respectively, with two lane failings during the AM peak. Projected 2018 conditions for this intersection (without the VAMC) are LOS F in the AM peak and LOS D in the PM peak.

BTM stated that the intersection of Old Henry Road and Factory Lane presently operates at an overall LOS B in the AM peak and a LOS C in the PM peak, with no lane failings. This intersection is not signalized at this time; it is an all-way stop-controlled intersection. KTC's planned reconfiguration of this intersection as part of the Old Henry Road improvements is not known. BTM indicated that it is expected that this intersection would be signalized, which would result in an approximate LOS C in 2018 without the VAMC.

BTM stated that currently, the intersection of Old Henry Road and Bush Farm Road operates at an overall LOS C in the AM peak and a LOS B in the PM peak, with no failings. KTC's reconfiguration plans for this intersection are unknown. Modeled 2018 conditions with no intersection improvements and without the VAMC would result in a LOS F in the AM peak and LOS C in the PM peak. However, it is anticipated that improvements would be made as part of the planned KTC project.

BTM stated that the existing levels of service for the northbound I-265 at Old Henry Road intersection for the AM and PM peaks are LOS E and LOS C, respectively, with no lane failings during AM peak conditions. This intersection is modeled to have AM and PM peak of LOS F and LOS D, respectively, in 2018 without the VAMC.

The City of Louisville manages traffic impacts through the LDC, Chapter 5, Part 10, Traffic Impacts and Chapter 6, Part 5, Traffic and Air Quality Assessment. An applicant is required to file a traffic impact study if the Director of Works determines that the development meets the conditions and thresholds established in the current version of the "Guidelines for Traffic Impact Studies and Air Quality Analysis in Jefferson County, Kentucky" or successor document as approved by the Planning Commission. The content and methodology of the traffic impact study and air quality analysis shall be in accordance with the Guidelines or successor document. Additionally, access to the replacement VAMC would require compliance with the

City of Louisville LDC, Chapter 5, Part 8, Street and Roadside Design Standards and Chapter 6, Part 1, Access Management and Part 2, Streets and Right-of-Way.

3.14.1 Effects of the Action Alternatives

Acquisition of either of the Action Alternative Sites by VA would produce no direct transportation and parking effects. However, future development of a new VAMC could have significant adverse impacts to transportation and traffic in the vicinity of either Site. No parking effects would be anticipated at either Site, as any future VAMC would provide ample parking based on anticipated use levels.

Preferred Action Alternative

Future development of a new VAMC at the Brownsboro Site could have short- and long-term, direct and indirect, significant adverse transportation (traffic) impacts due to the current and projected conditions of the intersection of I-264, Brownsboro Road, and Northfield Road/Old Brownsboro Road in the vicinity of the Brownsboro Site. The PWA indicated that the I-264/KY 22/Brownsboro Road interchange is congested at current traffic levels and that the Proposed Action would create traffic issues in the vicinity of the Brownsboro Site. PWA stated that any further development in this area would require improvement to the highway infrastructure as part of getting encroachment permits and other approvals. PWA noted that these improvements would likely involve improvements to the Brownsboro Road/KY 22/I-264 Interchange. As previously noted, KTC has planned improvements to the interchange, including the construction of the new slip ramp in 2012 and the reconfiguration of the interchange by 2020 or earlier.

Mr. Brian Meade of the KTC indicated that models created by the KTC concluded that proposed improvements (slip ramp and interchange reconfiguration) in the vicinity of the Brownsboro Site would adequately accommodate traffic at the Brownsboro Road/I-264 interchange for at least the next 15 to 20 years. KTC's modeling included the future development of the Brownsboro Site with an intensity that the owner originally proposed (6-story hotel and mixed use development). Mr. Meade indicated that if intensity would exceed this level, however, then significant traffic effects could result.

KTC also indicated that the reconfigured interchange will likely fully alleviate current and future traffic congestion at both the highway access point (I-264 and Brownsboro Road) and further down Old Brownsboro Road, and would likely be able to accommodate the proposed VAMC without significant, additional modifications to roadways.

OA's TIS included the modeling of the effects of the additional traffic associated with the proposed VAMC on the roads near the Brownsboro Site in 2018 assuming KTC's planned slip ramp is completed, but without other planned intersection/roadway improvements. The TIS indicates that the implementation of the Preferred Action Alternative could have a significant adverse impact to traffic (overall LOS E or worse) at intersections adjacent to US-42 and Northfield Drive/Old Brownsboro Road. The intersection of Brownsboro Road (US 42) at Northfield Drive/Old Brownsboro Road would operate at LOS F, unless improvements were implemented. If the Brownsboro Site is selected, VA would work with KTC and the City of Louisville to achieve roadway improvements to mitigate the potential traffic impacts, as discussed in Section 3.14.3. Some of these improvements (the interchange reconfiguration to a SPUI) are already being planned by KTC. The TIS analysis indicates that if these roadway improvements are implemented, the overall LOS of the intersections near the Brownsboro Site would be acceptable per KTC's standards (LOS D or better). See Table 10 scenario with the SPUI.

Alternate Action Alternative

Future development of a new VAMC at the St. Joseph Site could have short- and long-term, direct and indirect, significant adverse transportation impacts due to the current and projected conditions of the intersection of Old LaGrange Road and Factory Lane, the intersection of Bush Farm Road and Old Henry Road, and the intersection of the northbound I-265 exit ramps and Old Henry Road. The PWA indicated that the transportation infrastructure around the St. Joseph Site is inadequate to handle the traffic volumes associated with a VAMC. The PWA stated that major improvements to roads and intersections leading into the St. Joseph Site would be required as part of developing this site. The PWA noted that these improvements would likely include improvements to the I-265 interchange at Old LaGrange Road, the intersection of Old LaGrange Road and Factory Lane, and construction of a connector road to Old Henry Road.

Mr. Meade of the KTC, however, indicated that the Old Henry Road/I-265 interchange has ample capacity for the future VAMC. This intersection was designed with the development of the surrounding area for residential, commercial, and medical facilities in mind, including the St. Joseph Site. Mr. Meade indicated that a connector road from the St. Joseph Site to Old Henry Road would be the best way to access the site (KTC 2011).

BTM's TIA included the modeling of the effects of the additional traffic associated with the proposed VAMC on the roads near the St. Joseph Site in 2018, assuming that KTC's currently planned roadway improvements (such as the Old Henry Road Improvement and Extension Project) are completed (Table 11).

The TIA indicates that the proposed VAMC would have less-than-significant adverse transportation impacts to the intersection of the southbound I-265 ramps and La Grange Road, and the intersection of Factory Lane and Old Henry Road (with the implementation of KTC's planned improvements). Both of these intersections would have a similar LOS in 2018 with or without the VAMC; both would have a LOS of D or better, and neither would have individual lane failures.

The TIA results indicate that the intersection of Factory Lane/Chamberlain Lane and La Grange Road would operate at an unacceptable level of service (LOS F) without the construction of the VAMC. The TIA modeling indicates that the proposed VAMC would create additional delays at this intersection, further reducing the LOS.

The TIA also indicated that the intersection of the northbound I-265 ramps and Old Henry Road would operate at an unacceptable level of service in 2018 (LOS F) without the construction of the VAMC and that the proposed VAMC would add to these delays, further reducing the LOS.

The TIA indicated that the intersection of Bush Farm Road and Old Henry Road would operate at an unacceptable level of service (LOS F) in 2018 without the construction of the proposed VAMC and that the proposed VAMC would somewhat add to these delays. However, BTM noted that this intersection will be reconfigured during the planned Old Henry Road improvement project and that an appropriate reconfiguration would result in an acceptable level of service (LOS C) if the VAMC were constructed.

Therefore, the Alternate Action Alternative could result in significant adverse impacts to transportation due to the future VAMC's contribution to anticipated traffic congestion at the intersections of Old Henry Road with Bush Farm Road, LaGrange Road and Factory Lane/Chamberlain Lane, and the northbound I-265 ramps and Old Henry Road. However, if the Alternate Action Alternative is implemented, VA would work with KTC and the City of Louisville to design and mitigate the potential traffic impacts, as discussed in Section 3.14.3.

The TIA concluded the various intersection improvements, some already planned, would mitigate the traffic impacts associated with the proposed VAMC.

Both Action Alternative Sites

Construction traffic, consisting of trucks, workers' personal vehicles, and construction equipment, would increase traffic volumes in the local area, and could cause delays if this occurred during AM and PM peak periods. Installation and connection of utilities, located within or adjacent to Action Alternative sites, could also impact local roadways. These activities could result in additional traffic congestion, as well as a potential need to detour traffic around the area during utility work. However, only less-than-significant, short-term adverse impacts would be anticipated.

3.14.2 Effects of the No Action Alternative

Under the No Action Alternative, no construction by VA would occur. However, should the Action Alternative sites ultimately be developed by others, impacts similar to those identified under the Proposed Action would occur. The type and magnitude of transportation and parking effects would be dependent upon the future use of the site.

3.14.3 Mitigation / Management Measures

The Brownsboro Site TIS and St. Joseph Site TIA indicate that traffic conditions at one or more of the intersections both of the Action Alternative sites would be unacceptable (LOS E or F) in 2018 without the addition of the proposed VAMC. Unless roadway improvements are implemented, the proposed VAMC would result in additional traffic congestion, further degrading the traffic conditions in the area.

To mitigate the potentially significant impacts associated with the proposed VAMC, VA would consult and work with pertinent Federal, State (KTC), and local (City of Louisville) agencies to contribute to achieve roadway improvements at the selected site. The SEA would provide a detailed description of the roadway improvement mitigation required to reduce potential unacceptable traffic impacts within the ROI of the proposed VAMC. Possible mitigation options for each Action Alternative are described below; these would be further developed within the SEA once additional project details are known. It is anticipated that implementation of these mitigation measures would reduce the identified impacts to less-than-significant levels.

Preferred Action Alternative

The primary intersection of concern at the Brownsboro Site is the intersection of Brownsboro Road at Northfield Drive/Old Brownsboro Road. This intersection is expected operate at an LOS E in 2018 without the VAMC and LOS F with the VAMC. The TIS include the analysis of two scenarios with roadway improvements, one with the planned SPUI and one without the SPUI (see Table 10). This analysis indicates with KTC's planned reconfiguration of the I-264/Brownsboro Road interchange as a SPUI, in combination with other roadway improvements, adverse traffic impacts associated with the Preferred Action Alternative would be reduced to acceptable levels. Improvements included in this scenario include:

- The planned reconfiguration of the I-264/Brownsboro Road (US-42) interchange as a SPUI.

- The widening of Northfield Drive/Old Brownsboro Road to accommodate an additional southbound thru lane and a dedicated two-way-left turn land between US-42 and KY-22. This is part of the 2012 slip ramp project.

- Widen US-42 to a six-lane divided road from the I-264 interchange to approximately 600 feet of Northfield Drive.

- Add a third northbound lane, providing a triple left turn, at the intersection of US-42 and Northfield Drive/Old Brownsboro Road.

- Modify the intersection of Old Brownsboro Road and the I-264 slip ramp to signalize westbound right turn movements and add dual westbound right turn lanes on Old Brownsboro Road. Modify the northbound right-turn lane to a thru/right lane to provide two through lanes in the northbound direction.

Additional options to improve traffic conditions at the Brownsboro Site include:

- Additional reconfigurations of the I-264/Brownsboro Road intersection.

- Staggering employee shifts at the VAMC to reduce traffic during peak hours (AM and PM).

These options and other possible roadway improvements would be evaluated by VA through consultation with KTC and the City of Louisville during the project design phase, assessed through additional traffic impact analyses, and detailed and more fully developed in the SEA. If the Brownsboro Site is selected, KTC would consider the traffic associated with the proposed VAMC in its planned interchange reconfiguration design in 2013.

Alternate Action Alternative

Three intersections are projected to have an unacceptable level of service in the vicinity of the St. Joseph Site. One of these intersections (Bush Farm Road/Old Henry Road) will be improved in association with KTC's Old Henry Road Improvement Project by 2015, prior to the completion of the VAMC. The configuration of this new intersection is unknown; however, it is anticipated that it would be designed to mitigate traffic delays at this intersection. The TIA modeled this intersection with the addition of a northbound left turn lane, a westbound through lane, and an additional lane for both approaches. This configuration resulted in a LOS C for 2018 with the future VAMC.

The intersection of La Grange Road at Factory Lane/Chamberlain Lane is modeled to operate at a LOS F if the VAMC were constructed at the St. Joseph Site, with the primary movement of concern being the left turn from Factory Lane to La Grange Road. Factory Lane currently has a left turn lane, a through/left turn lane, and a right turn lane at this intersection. The TIA indicated that by restriping this approach to provide two left turn lanes and a through/right turn lane, the overall LOS for the intersection would be improved to LOS D.

The third intersection projected to have an unacceptable level of service in the vicinity of the St. Joseph Site is the I-265 exit ramps at Old Henry Road. The westbound lanes on Old Henry Road (AM peak), the left turn lane from the I-265 exit ramp to Old Henry Road (AM peak), and the right turn lane from the I-265 exit ramp to Old Henry Road (PM peak) are modeled to operate at a LOS F with the proposed VAMC. Reconfiguration of this intersection could alleviate these traffic delays.

These options and other possible roadway improvements (such as the creation of dual ingress/egress points to the VAMC from Factory Lane and a connector from Old Henry Road) would be evaluated by VA through consultation with KTC and the City of Louisville during the project design phase, assessed through additional traffic impact analyses, and detailed and more fully developed in the SEA.

Both Action Alternatives

In addition to the above-described mitigation measures, implementing the following BMPs would reduce potential adverse traffic impacts on local roadways during the construction phase of the future VAMC:

- Ensure debris and/or soil is not deposited on local roadways during the construction period.
- Ensure construction activities do not adversely affect traffic flow on local roadways; construction traffic would be timed to avoid peak travel hours.
- VA would coordinate with local officials and the KTC to ensure that construction traffic is considered in the planning of future transportation improvements in the vicinity of the Proposed Action.

3.15 Utilities

Basic utilities in Louisville and Jefferson County (i.e., water, sewer, natural gas, and electric) are provided by the various utility providers. As part of the preparation of this PEA, local utility providers were researched to determine the availability of required utilities in the vicinity of the Action Alternative sites. The following identifies the utility providers to the sites:

Preferred Action Alternative

The **Louisville Water Company (LWC)** supplies potable water to the Brownsboro Site. The LWC indicated that it can provide water supply to the Brownsboro Site along the northern boundary (Brownsboro Road) where there are existing 6-inch and 12-inch water mains.

The **Louisville Metropolitan Sewer District (MSD)** supplies stormwater and sanitary sewer service to the Brownsboro Site.

The **Louisville Gas and Electric (LGE)** supplies the natural gas and electrical services to the Brownsboro Site. LGE stated that natural gas and electric services are available for the proposed development.

AT&T Kentucky (AT&T) provides telecommunication services to the Brownsboro Site.

Alternate Action Alternative

The **LWC** supplies potable water to the St. Joseph Site. The LWC indicated that it can provide water supply to the St. Joseph Site along the northern boundary (Factory Lane) where there is an existing 12-inch water main. The LWC stated that a new water supply tank is being constructed near the southern boundary of the St. Joseph Site and would be ready for service in 2012.

The **MSD** supplies stormwater and sanitary sewer service to the St. Joseph Site. The MSD also stated that the Floyds Fork Treatment Plant is nearing capacity. The MSD reported that they are working on plans to expand the treatment plant, but work would likely be completed in 2012.

The **LGE** supplies the natural gas and electrical services to the St. Joseph Site. LGE stated that natural gas and electric services are available for the proposed development.

AT&T provides telecommunication services to the St. Joseph Site.

3.15.1 Effects of the Action Alternatives

Acquisition of either of the Action Alternative Sites by VA would produce no direct utilities effects. However, future development of a new VAMC may or may not have adverse utilities effects.

Construction of the proposed replacement VAMC would result in an increase in the consumption of utilities, including electricity, natural gas, potable water, and sanitary sewer discharges. All major utility services are available immediately next to the Action Alternative sites. The proposed facility would not be anticipated to require extraordinary utility needs beyond those of similar hospital developments.

Preferred Action Alternative

The **LWC** can provide water supply to the Brownsboro Site, provided the domestic and fire prevention flow requirements do not exceed the capacities of the water mains. Specific system improvement requirements would be determined when detailed plans and information are provided to the LWC.

The **MSD** indicated that due to flooding on the west side of I-264 (downstream), stormwater retention would be required for the Brownsboro Site. The MSD stated that post-developed stormwater flows must meet pre-existing flow rates or the capacity of the downstream system, whichever is more restrictive. The MSD also stated that the proposed development of the Brownsboro Site would likely have negligible impacts on the existing sanitary system.

LGE stated that all necessary ROW permits, standard rates, required modifications or additions ordered or approved, and rules and regulations on file with the Public Service Commission of the Kentucky (PSC) are applicable. LGE stated that a primary electrical feed would be provided to the Brownsboro Site from the Taylor Substation, located approximately one mile west of the Site. In addition, LGE stated that a backup electrical feed is possible for the Brownsboro Site.

AT&T stated that telecommunication services can be provided to the Proposed Action provided that information pertaining to land use, density, sites plans, and agreements are provided for evaluation by AT&T.

Alternate Action Alternative

The **LWC** can provide water supply to the St. Joseph Site, provided the domestic and fire prevention flow requirements do not exceed the capacities of the water mains. Specific system improvement requirements would be determined when detailed plans and information are provided to the LWC. The LWC stated that a private fire hydrant loop would likely be required for the St. Joseph Site.

The **MSD** indicated that stormwater retention would be required for the St. Joseph Site due to severe flooding in the vicinity of, but not on the St. Joseph. The MSD stated that post-developed stormwater flows must meet pre-existing flow rates or the capacity of the downstream system, whichever is more restrictive. The MSD also stated that the proposed development of the St. Joseph Site would likely have negligible impacts on the existing sanitary system and sanitary services for the St. Joseph Site would likely be adequate for the Proposed Action.

The **LGE** stated that all necessary ROW permits, standard rates, required modifications or additions ordered or approved, and rules and regulations on file with the PSC are applicable. LGE also stated that an electrical service feed would come from the Old Henry Substation; however, a backup feed would have to come from a second transformer that has not been installed.

AT&T stated that telecommunication services can be provided for the Proposed Action provided that information pertaining to land use, density, sites plans, and agreements are provided for evaluation by AT&T.

3.15.2 Effects of the No Action Alternative

Under the No Action Alternative, no construction by VA would occur. However, should the Action Alternative sites ultimately be developed by others, impacts similar to those identified under the Proposed Action would occur. The type and magnitude of utility effects would be dependent upon the future use of the site.

3.15.3 Mitigation / Management Measures

No project-specific mitigation measures are required. However, the following management measures would likely be necessary:

Both Action Alternatives

- Specific system improvement requirements, required modifications, and/or additions would be determined when detailed plans and information are provided to their respective utility providers.

- The MSD stated that stormwater retention would be required for the both Action Alternative sites. The MSD stated that post-developed stormwater flows must meet pre-existing flow rates or the capacity of the downstream system, whichever is more restrictive.

- LGE stated that all necessary ROW permits, standard rates, required modifications or additions ordered or approved, and rules and regulations on file with the PSC are applicable.

Preferred Action Alternative

No site-specific management measures are required.

Alternate Action Alternative

- The LWC indicated that a private fire hydrant loop would likely be required for the St. Joseph Site.

3.16 Environmental Justice

In 1994, EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, was issued to focus attention of Federal agencies on human health and environmental conditions in minority and low-income communities and to ensure that disproportionately high and adverse human health or environmental effects on these communities are identified and addressed. In order to provide a thorough environmental justice evaluation, this socioeconomics' presentation gives particular attention to the distribution of race and poverty status in areas potentially affected by implementation of the

Proposed Action. For purposes of this analysis, minority and low-income populations are defined as:

- Minority Populations: Persons of Hispanic origin of any race, African Americans, American Indians, Eskimos, Aleuts, Asians, or Pacific Islanders.
- Low-Income Populations: Persons living below the poverty level, based on a total annual income of $12,674 for a family of four persons as reported in the 2000 census.

The City of Louisville, as a whole, has higher minority and low-income populations than the State of Kentucky as a whole. However, the Action Alternative sites are not located in areas with a disproportionate concentration of low-income or minority populations. The Proposed Action is not likely to have an adverse effect on the local population; but is likely to have a short and long-term positive socioeconomic effect on local employment and personal income.

3.16.1 Effects of the Action Alternatives

Acquisition of either of the Action Alternative Sites by VA would produce no direct environmental justice effects. In addition, future development of a new VAMC at one of these sites is not anticipated to have adverse environmental justice effects.

Under the Proposed Action, no significant adverse environmental justice effects would be anticipated. No local groups are known to principally rely on fish or wildlife for subsistence. Consequently, no adverse impacts to such disadvantaged segments of the population are anticipated.

The Proposed Action is not likely to have an adverse effect on the local population, but is likely to have a short-term and long-term positive socioeconomic effect on the local employment and personal income.

3.16.2 Effects of the No Action Alternative

Under the No Action Alternative, no development by VA would occur at either of the Action Alternative sites and there would be no environmental justice effect. If the Action Alternative sites were to be developed by others, there would not likely be adverse environmental justice effects. However, this would be dependent upon the future use.

3.16.3 Mitigation / Management Measures

No project-specific mitigation or management measures are required.

3.17 Cumulative Impacts

As defined by CEQ Regulations in 40 CFR Part 1508.7, cumulative impacts are those which "result from the incremental impact of the Proposed Action when added to other past, present, and reasonably foreseeable future actions, without regard to the agency (Federal or non-Federal) or individual who undertakes such other actions." Cumulative impact analysis captures the effects that result from the Proposed Action in combination with the effects of other actions taken during the duration of the Proposed Action in the same geographic area. Because of extensive influences of multiple forces, cumulative effects are the most difficult to analyze.

NEPA requires the analysis of cumulative environmental effects of a Proposed Action, or set of actions, on resources that may often be manifested only at the cumulative level, such as

traffic congestion, air quality, noise, biological resources, cultural resources, socioeconomic conditions, utility system capacities, and others.

Preferred Action Alternative

The Brownsboro Site is located in a suburban area southeast of the intersection of Brownsboro Road and I-264 and includes approximately 36 acres of unimproved, former agricultural land. The area adjacent to the northern boundary of the site across Old Brownsboro Road is currently occupied by Goodwill, Thornton's gasoline station and car wash, Dairy Queen, Java House coffee house, Highland Cleaners, and BB&T Bank. The area adjacent to the eastern boundary of the Brownsboro Site is occupied by Browenton office building and a residential neighborhood. The area adjacent to the southern boundary of the Brownsboro Site is occupied by a residential neighborhood. The area adjacent to the western boundary of the Brownsboro Site is occupied by the I-264 Expressway.

The ROI for the Brownsboro Site is mostly developed. Little space remains for in-fill development other than an approximately 19-acre area of unimproved land located approximately ¼-mile northeast of the Brownsboro Site along Herr Lane that is owned by Providence Point Commercial, LLC. Identified as Providence Point, the proposed development of this area includes 312 residential condominiums and a center piece mixed-use building with the first floor containing 46,000 square feet of retail and each of the second and third floors containing 46,000 square feet of offices. In addition, outparcels for commercial use are also included in the development plans. The Providence Park development was scheduled to begin in 2007 or 2008, but has not begun. The current status of the proposed development plans is unknown.

As stated in Section 3.14, KTC has a project planned for the eastbound Watterson Expressway (I-264) off-ramp, which is scheduled to begin in 2012. Along with the addition of a second dedicated left turn lane on the existing ramp, a new ramp would be constructed from the off-ramp directly to Old Brownsboro Road. The "slip ramp" would connect into Old Brownsboro Road at the proposed location for the entrance to the Brownsboro Site. This would eliminate the need for vehicles to turn right onto US 42 and immediately right again onto Old Brownsboro Road. The reconfiguration of the interchange is also planned. KTC is scheduled to begin the design work in 2013 and implement the design by 2020.

The Preferred Action Alternative would result in the impacts to the Brownsboro Site area identified throughout Section 3. These primarily include potential adverse impacts to aesthetics (long-term), air quality (short and long-term), cultural resources (short and long-term), soils (short and long-term), hydrology and water quality (short and long-term), wildlife and habitat (short and long-term), noise (short-term), land use (sort-term and long-term), solid and hazardous materials (short-term and long-term), transportation and parking (short-term and long-term), and utilities (long-term). With the exception of transportation, all of these impacts are less-than-significant and would be further reduced through careful coordination and implementation of the general BMPs and management measures, and compliance with regulatory requirements as identified throughout Section 3. Given the nature of the Proposed Action and the mostly developed area surrounding the Brownsboro Site, no significant cumulative adverse effects to any of these resource areas are anticipated. No adverse effects to socioeconomics, community services, or environmental justice would occur as a result of the Proposed Action. As such, no cumulative adverse effects to any of these resource areas are anticipated.

The implementation of the Preferred Action Alternative could result in significant traffic impacts on roads in the Brownsboro Site area. As detailed in Section 3.14, VA would mitigate these potential impacts to less-than-significant levels through the design and implementation of roadway improvements in the Site area in consultation with KTC and the City of Louisville. The specific improvements will be detailed in the SEA, if this alternative is selected.

KTC's planned improvements to the I-264 off-ramp (the slip ramp) would not have a cumulative adverse effect with the Proposed Action. KTC's planned improvements are scheduled to be completed prior to construction of the VAMC. Therefore, cumulative traffic effects associated with the simultaneous construction of these roadway improvements and the planned KTC improvements would provide proactive mitigation of current traffic conditions prior to the implementation of the Proposed Action. KTC's planned reconfiguration of the I-264/Brownsboro Road interchange could result in cumulative traffic impacts with the proposed VAMC construction if these activities were to occur concurrently. However, VA would coordinate its construction activities with KTC to minimize cumulative impacts.

It is unknown if the previously planned Providence Park development of the vacant, 19-acre area approximately 0.25 mile northeast of the Brownsboro Site will be implemented or not. If this area is developed, it would create additional traffic on local roads and would add to the traffic impacts anticipated by the implementation of the Proposed Action at the Brownsboro Site. VA would address potential adverse impacts within the ROI of the Proposed Action at the Brownsboro Site through the design and implementation of roadway improvements, thereby mitigation potential cumulative traffic effects.

Alternate Action Alternative

The St. Joseph Site is located in a suburban area east of I-265 and south of Factory Lane. This site includes approximately 99 acres of mostly unimproved, agricultural land. The area adjacent to the northern boundary of the St. Joseph Site across Factory Lane, is currently occupied by undeveloped land and scattered residential structures. The area adjacent to the eastern boundary of the St. Joseph Site is occupied by pasture land and Covenant Church and School. The area adjacent to the southern boundary is occupied by unimproved land, residential neighborhoods, and Jewish Hospital Medical Center. The area adjacent to the western boundary of the St. Joseph Site is currently occupied by residential properties and across I-265 by Baptist Eastpointe Hospital.

The ROI for the St. Joseph Site is somewhat undeveloped/unimproved land. Improvements have been made to the infrastructure of the surrounding area (i.e., I-265 and Old Henry Road interchange) with the purpose to promote in-fill development in the region. Recent development projects in the vicinity of the St. Joseph Site have included the Jewish Hospital Medical Center located approximately 1,000 feet southeast of the Site, Baptist Eastpointe Hospital located across I-265 to the west of the Site, and a commercial office park (First Commonwealth Mortgages, Anthem Medical Insurance, and Advanced Solutions, Inc.) located across I-265 to the west of the Site. An additional commercial/industrial park is located further to the west of the Site across I-265. In addition, numerous residential developments have been constructed in the areas surrounding the St. Joseph Site. Although land in the vicinity of the St. Joseph Site has the potential for redevelopment, no specific additional development plans were identified.

As stated in Section 3.14, KTC has a major project planned for Old Henry Road. The Old Henry Road Improvement and Extension Project is scheduled to be complete in approximately 2015. The project would realign and widen Old Henry Road to a three-lane section east of Bush Farm Road and extend it beyond Factory Lane to KY 362 (Ash Avenue). The three-lane section would be one lane in each direction with a two-way left turn lane in the middle. The new route would provide better access to the interchange for vehicles traveling from Oldham County, Shelby County and far eastern Jefferson County.

The Alternate Action Alternative would result in the impacts to the St. Joseph Site area identified throughout Section 3. These primarily include potential adverse impacts to aesthetics (long-term), air quality (short and long-term), cultural resources (short and long-term), soils (short and long-term), hydrology and water quality (short and long-term), wildlife and habitat (short and long-term), noise (short-term), land use (sort-term and long-term),

wetlands (short and long-term), solid and hazardous materials (short- and long-term), transportation and parking (short-term and long-term), and utilities (long-term). With the exception of transportation and parking, hydrology and water quality (Waters of the US), wildlife and habitat, and wetlands, all of these impacts are less-than-significant and would be further reduced through careful coordination and implementation of the general BMPs, mitigation and management measures, and compliance with regulatory requirements as identified throughout Section 3. Given the nature of the Proposed Action and the area surrounding the St. Joseph Site, no significant cumulative adverse effects to any of these resource areas are anticipated.

No adverse effects to land use, socioeconomics, community services, or environmental justice would occur. As such, no cumulative adverse effects to any of these resource areas are anticipated.

As discussed in Section 3.6 and Section 3.10, streams (Waters of the US) and wetlands are present on the St. Joseph Site. VA would prevent significant impacts to these hydrologic features largely through avoidance. If avoidance is not possible in the site design (such as stream crossings), VA would implement routine mitigation measures in accordance with USACE and KDEP requirements to prevent significant impacts. Based on the site-specific, localized nature of the potential impacts to hydrologic features, no significant cumulative adverse impacts are anticipated.

Potential Indiana Bat habitat is present at the St. Joseph Site. In addition, Running Buffalo Clover was identified adjacent to the eastern boundary of the southern portion of the St. Joseph Site. As discussed in Section 3.7, VA would maintain a buffer of undisturbed land around the protected wildlife resources, if possible. If impacts to these areas are unavoidable, VA would mitigate impacts to less-than-significant levels in consultation with the USFWS through seasonal tree clearing, etc. The St. Joseph Site is largely agricultural land with small areas of protected habitat. As such, impacts to this habitat, if any, would be limited and are not anticipated to be cumulatively significant.

Although the KTC indicated that the Old Henry Road/I-265 interchange was designed in consideration of the development of the St. Joseph Site and the surrounding area, VA's traffic impact analysis indicates that the Alternate Action Alternative could result in significant traffic impacts on roads local to the St. Joseph Site. As detailed in Section 3.14, VA would mitigate these potential impacts to less-than-significant levels through the contribution of funds for the design and implementation of roadway improvements in consultation with the KTC and the City of Louisville.

KTC's planned improvements for Old Henry Road are scheduled to be completed prior to the VAMC. Therefore, cumulative traffic effects associated with the simultaneous construction of these roadway improvements and the VAMC would not occur. The planned KTC improvements would provide proactive mitigation of the project traffic impacts associated with the implementation of the Proposed Action at the St. Joseph Site. KTC's planned improvements for Old Henry Road would not have a cumulative adverse effect with the Proposed Action.

No significant adverse cumulative impacts to the environment, induced by changes at the Action Alternative sites, are anticipated within the region. Close coordination between the USACE, USFWS, KDEP, KDFWR, KTC, SHPO, NRCS, and community representatives would serve to manage and control cumulative effects within the region, including managing regional transportation increases with adequate infrastructure. Implementation of land use and resource management plans would serve to control the extent of environmental impacts, and proper planning would ensure future socioeconomic conditions maintain, if not improve the local standard of living. Implementation of effective resource management plans and programs should minimize or eliminate any potential cumulative degradation of the natural ecosystem.

Under the No Action Alternative, cumulative impacts would be similar to those identified for the Proposed Action, as the Action Alternative sites would likely be developed for another use. The extent of cumulative effects under the No Action Alternative would depend upon that future use.

3.18 Potential for Generating Substantial Public Controversy

As discussed in Section 4, VA has solicited input from various Federal, State, and local government agencies regarding the Proposed Action. Several of these agencies have provided input; none of these agencies expressed opposition to the Proposed Action. VA published and distributed the Draft PEA for a 30-day public comment period and held a public meeting regarding the Proposed Action..

Residents in the vicinity of the Brownsboro Site have expressed concern regarding the traffic conditions in the Brownsboro Site area and the potential adverse effects associated with the implementation of the Preferred Action Alternative. Previously, VA held two town hall meetings with the general public in May 2011 to introduce the Proposed Action. Additionally, VA attended a Crossgate Community City Council Meeting on March 12, 2012. VA has also surveyed veterans with the Louisville VAMC catchment area to assist in evaluating a Proposed Action that accommodates the greatest number of Veterans.

In the past several years, approximately 30 articles have been published in local newspapers regarding VA's need for a replacement VAMC in the Louisville area. In addition, at least four articles regarding the Proposed Action at the Brownsboro Site have been published in local newspapers.

Additional public input regarding the Proposed Action was obtained through the Draft PEA public comment process and public meeting held at Kammerer Middle School, located near the Brownsboro Site, on April 18, 2012. Comments provided during and after the public meeting indicate that there is considerable controversy regarding the selection of the optimal site for the proposed replacement VAMC. Public comments and/or concerns are discussed in Section 4.

SECTION 4: PUBLIC INVOLVEMENT

4.1 Public and Agency Involvement

VA invites public participation in decision-making on new proposals through the NEPA process. Public participation with respect to decision-making on the Proposed Action is guided by 38 CFR Part 26, VA's policy for implementing the NEPA. Additional guidance is provided in VA's Environmental Compliance Manual (VA 1998). Consideration of the views and information of all interested persons promotes open communication and enables better decision-making. Agencies, organizations, and members of the public with a potential interest in the Proposed Action, such as minority, low-income, and disadvantaged persons, are urged to participate. A record of public involvement and agency coordination associated with this PEA is provided in Appendix A.

4.1.1 Public Review

VA, as the Federal proponent of the Proposed Action, published and distributed the Draft PEA for a 30-day public comment period as announced by a Notice of Availability (NOA) published in the Louisville Courier-Journal on March 30, 2012 through April 12, 2012. Review copies were made available for public review at the Louisville Free Public Library – Westport Branch, as well as at the existing Louisville VAMC. VA also made a copy available for download via the internet through a link on the Louisville VAMC internet website. In addition, VA held a public meeting on April 18, 2012 at Kammerer Middle School, located near the Brownsboro Site, to discuss the Proposed Action and the Draft PEA, and to accept comments on the Draft PEA. 203 people signed in at the public meeting. VA received:

- 28 verbal public comments during the public meeting held at Kammerer Middle School on April 18, 2012.
- 26 written public comments left in the drop box after the public meeting held at Kammerer Middle School on April 18, 2012.
- 83 written public comments were received via email or US Mail.
- 144 people signed a petition and sent emails to VA and Kentucky elected officials (93 within the public comment period) requesting that VA select the St. Joseph Site for the proposed VAMC and noted that the St. Joseph Site is approximately 3 times larger than the Brownsboro Site for approximately one half of the cost. (It should be noted that this statement is speculative; VA has not negotiated a price for the St. Joseph Site).

Many of the responders provided similar comments and many provided multiple comments. The comments that are relevant to the Draft PEA and VA's responses are summarized in Appendix D. Where applicable, the Final PEA was modified to reflect these comments.

In addition, the following input was provided by local government agencies or quasi-government agencies regarding the Draft PEA:

Greater Louisville, Inc.

Greater Louisville, Inc. indicated that as the chamber of commerce and economic development agency in Metro Louisville, it is in strong support of VA's decision to build a new VAMC in Louisville and that a project of this size and significance is extremely important to the community and critical to serving the many Veterans in the region. Greater Louisville, Inc.

urged VA to quickly move forward with the project so that construction can begin as soon as possible.

City of Indian Hills

The City of Indian Hills indicated that it is adamantly opposed to the Brownsboro Site for the VAMC and that this is also the opinion of many of its residents who have contacted them. The City indicated that traffic volumes in the area of the Brownsboro Site are already more than the roads can handle, particularly during rush hours, and that this situation would be made worse by the proposed VAMC. The City also expressed skepticism regarding any newly designed intersections and roadways to expedite traffic flow. The City asked VA to reconsider its preference for the Brownsboro Site due to the tremendous impact that project would have on the community.

Louisville Metro Council

Louisville Metro Council representatives for the Brownsboro Site area noted that traffic is the main concern for residents in the surrounding area and that if VA selects this site, they hope that the Federal government would help streamline proposed improvements to the I-264/Brownsboro Road interchange. Louisville Metro Council noted that the design phase for the interchange improvement project was recently approved by the Kentucky General Assembly and would be an important improvement when additional traffic is added to the surrounding area. Louisville Metro Council also recommended that VA work with the Mayors of Graymoor-Devondale, Northfield, and Crossgate regarding any new traffic patterns, including accessing and exiting the neighborhoods.

Louisville Metro Council noted that as a Federal agency, VA is not required to follow the planning and design standards set forth in the Louisville Metro Land Development Code. However, they requested that VA include Louisville Metro Planning and Design Services as a member of the planning team during the project design phase, who can advise on the design standards, including lighting and landscaping buffers, the Louisville residents have become accustomed to.

Louisville Metro Council also noted that many residents of Crossgate and Graymoor-Devondale currently experience drainage problems and are concerned about the potential adverse effects of the proposed VAMC on the already taxed drainage system. They requested that VA work with the Louisville Metropolitan Sewer District and neighbors in developing a comprehensive drainage plan that will help address these concerns.

4.1.2 Agency Coordination

Interagency and Intergovernmental Coordination for Environmental Planning (IICEP) is a federally mandated process for informing and coordinating with other governmental agencies regarding Federal Proposed Actions. CEQ Regulations require intergovernmental notifications prior to making any detailed statement of environmental impacts. Through the IICEP process, VA notifies relevant Federal, State, and local agencies and allows them sufficient time to make known their environmental concerns specific to a Proposed Action. Comments and concerns submitted by these agencies during the IICEP process are subsequently incorporated into the analysis of potential environmental impacts conducted as part of the PEA. This coordination fulfills requirements under EO 12372 (superseded by EO 12416, and subsequently supplemented by EO 13132), which requires Federal agencies to cooperate with and consider State and local views in implementing a Federal proposal. It also constitutes the IICEP process for this PEA.

Agencies consulted for this PEA include: the US Fish and Wildlife Service (USFWS) - Southeast Region, US Environmental Protection Agency (USEPA) Region 4, US Army Corps of Engineers (USACE) – Louisville District, Kentucky Department of Natural Resources (KDNR), Kentucky Department of Environmental Protection (KDEP), Kentucky Department of Fish and Wildlife Resources (KDFWR), Kentucky Transportation Cabinet (KTC), Kentucky Heritage Council (State Historic Preservation Office or SHPO), Jefferson County – Louisville Metro Air Pollution Control District (MAP), Jefferson County – Louisville Economic Development Department (EDD), Jefferson County – Louisville Inspections, Permits, and Licensing Department (IPL), Jefferson County Soil and Water Conservation District (SWCD), Jefferson County – Louisville Planning and Design Services (PDS), Jefferson County – Louisville Metro Public Works and Assets (PWA), Natural Resources Conservation Service – Mount Washington Service Center (NRCS), and Jefferson County – Louisville Metro Parks Department (MPD). Agency information and comments have been incorporated into this EA, as and where appropriate.

Responses were received from the following agencies (see Appendix A). The following summarizes that input, which was used to focus this PEA's analysis:

Both Action Alternatives

The **KDFWR** generally stated that, for both Action Alternative sites, impacts to aquatic resources should be minimized through the implementation of strict erosion control measures prior to any future construction to minimize siltation into streams and stormwater drainage systems located within the project area. Such erosion control measures may include, but are not limited to, silt fences, staked straw bales, brush barriers, sediment basins, and diversion ditches. Erosion control measures would need to be installed prior to any future construction and should be inspected and repaired regularly as needed.

The **KDEP Division of Air Quality (DAQ)** stated that any future VA development of any site would be required to comply with DAQ regulations 401 KAR 63:010 (Fugitive Emissions), 401 KAR 63:005 (Prohibition of Open Burning), and 401 KAR 58:025 (Asbestos Standards). The DAQ also recommended that local government regulations should be considered. No other comments were provided by the DAQ.

The **KDEP Nature Preserves Commission** indicated that they did not have any concerns pertaining to the Proposed Action or the considered sites.

The **KDEP Division of Water (DOW)** stated that BMPs should be used to reduce runoff from any future VA development of any site into adjacent surface waters and stated that any development within floodplains would require a Stream Construction Permit issued by the DOW. In addition, the DOW stated that a Groundwater Protection Plan (GPP) would be required if any activities detailed in the GPP regulation are conducted. Any existing wells to be abandoned and any new wells installed would need to be completed by a Kentucky-certified well driller.

The **KDEP Division of Waste Management (DWM)** stated that they do not have any comments regarding the Action Alternative sites and would provide comments after the site selection has been completed.

The **Louisville Metro Public Works and Assets (PWA)** stated that there are several endangered species of plants, such as Running Buffalo Clover, that have been documented in Jefferson County. Additionally, Indiana Bats also have been found in many wooded areas in Jefferson County.

The **Louisville Water Company (LWC)** stated that if an Action Alternative would require subdivision, the LWC New Development and Extensions Department (NDE) would need to be

consulted; however, VA does not intend to subdivide the selected site. Specific system improvement requirements would be determined when detailed plans and information are provided to the LWC. New services require that all fees for water taps, fire service taps, and water meters be submitted before the installation process can begin. The LWC stated that their Service Rules and Regulations require that a property must abut a public right-of-way (ROW), public water easement, or other public utility easement in which a LWC water distribution main is located. Both Action Alternatives abut a public ROW, public water easement, and/or other public utility easement.

Listed below are the site-specific issues identified by the agencies contacted during this NEPA process. All of these issues are addressed in Section 3 of the PEA.

Brownsboro Site

The **USFWS** indicated that the Brownsboro Site is situated within the home range of a known Indiana Bat maternity colony (i.e., suitable habitat used by juveniles and reproductive females). However, the USFWS identified that the Brownsboro Site is previously cleared, adjacent to a highway, and surrounded by development. Based on these factors, the USFWS stated that the Brownsboro Site does not contain suitable roost trees for Indiana Bats and future development at the Brownsboro Site would not likely adversely affect the Indiana Bat.

A response from the **SHPO** dated April 25, 2011 indicated that the Brownsboro Site has the potential to contain prehistoric and/or historic resources that could be impacted by the Proposed Action (during the future construction of a VAMC), and the Proposed Action has the potential to cause indirect effects to historic properties near the site. The SHPO recommended that a records review be completed for the site to assess the potential for archeological resources and structures that are over 50 years of age at and in the vicinity of the Brownsboro Site.

In response to SHPO comments, VA retained R. Christopher Goodwin and Associates, Inc. (RC Goodwin) to conduct a records review of the Brownsboro Site. RC Goodwin indicated that no National Register of Historic Places (NRHP) historic districts or eligible structures are located on the Brownsboro Site. The site included a previously historic structure, but it is no longer present and its eligibility is undetermined. RC Goodwin also noted that the Zachary Taylor National Historic Landmark and National Cemetery, located approximately one-half mile west of the Site, and several individually listed NRHP properties (1,000 feet or more from the Site), are potentially located in the area of potential effect (APE) for the Brownsboro Site. RC Goodwin indicated that no archeological remains had been documented at the Brownsboro Site, but no surveys had been conducted at the Site; therefore, it was possible intact archeological sites may be present.

RC Goodwin proceeded with a Phase I AI which identified one archeological site in the northwest portion of the Brownsboro Site. However, RC Goodwin concluded that this archeological site does not possess the qualities of significance defined by the National Register Criteria for Evaluation and does not present research potential. As such, RC Goodwin concluded that the Brownsboro Site does not contain cultural resources listed, or eligible for listing, in the NRHP and recommended no further investigations. VA submitted the Draft AI for the Brownsboro Site to the Kentucky SHPO for review and concurrence under Section 106 of the NHPA. The SHPO reviewed the AI and indicated that it concurred with its findings and recommendations. However the SHPO noted that this occurrence only applies to archeological resources. The SHPO stated that additional analyses would be required to evaluate direct and indirect impacts to above ground cultural resources within the APE of the Brownsboro Site to fulfill VA's Section 106 requirements. The additional requested analysis would be conducted during the SEA.

The **PWA** expressed a concern regarding the potential future loss of pervious surfaces at the Brownsboro Site; however, the agency did not indicate that this would prevent the future development of a VAMC at the Brownsboro Site. The PWA also indicated that the Brownsboro Site includes prime and unique farmland soils.

The PWA also identified that future construction of a VAMC at this site would create traffic and associated air quality issues. According to the PWA, the US 42 and I-264 interchange is already congested. PWA stated that any further development in this area could require major improvement to the highway infrastructure. These improvements would likely involve improvements to the I-264 interchange. The PWA stated that, with the congestion at this location, further degradation to traffic and air quality would be problematic. The reconfiguration of the US 42 and I-264 interchange, as recommended by the PWA, is already planned by the KTC and is scheduled to be completed by 2020 or earlier (see below).

The **KTC** indicated that it has planned improvements to the I-264 and Brownsboro Road interchange that include the construction of a slip ramp for exiting I-264 that is expected to be completed by the end of 2012 and a completely new interchange configuration (Single Point Urban Interchange) that is planned to be designed beginning in 2013. KTC indicated that the new interchange is expected to be completed by 2020, but may be expedited. KTC stated that the reconfigured interchange would likely fully alleviate traffic congestion at both the highway access point (I-264 and Brownsboro Road) and further down Old Brownsboro Road, and would likely be able to accommodate the proposed VAMC without significant, additional modifications to roadways.

BTM prepared a TIA for the Brownsboro Site on behalf of VA in March 2012. In addition, Oculus, Inc. and Olsson Associates completed a TIS on behalf of VA in May 2012. The TIA and TIS evaluated peak traffic conditions under three scenarios: current conditions, projected 2018 conditions without the proposed VAMC, and projected 2018 conditions with the proposed VAMC. The results of the TIA and TIS indicate that the proposed VAMC could have a significant impact on traffic in the Brownsboro Site area, particularly at the intersection of Brownsboro Road (US 42) and Northfield Drive/Old Brownsboro Road (KY 22). The TIA and TIS also indicated that improvements to this intersection and the I-264/US 42 interchange improvements already planned by KTC would mitigate potential significant traffic impacts associated with the proposed VAMC.

The **KDFWR** indicated that no listed threatened or endangered species were identified for the Brownsboro Site; however, this site falls within known Indiana Bat summer maternity habitat and is considered a sensitive area for this species. KDFWR indicated that further coordination with the USFWS Kentucky Field Office would be required prior to any future construction. However, the USFWS stated that the Brownsboro Site does not contain suitable roost trees for Indiana Bats and future development at the Brownsboro Site would not likely adversely affect the Indiana Bat (see above).

The **Louisville Metropolitan Sewer District (MSD)** indicated that, due to flooding on the west side of I-264 (downstream), stormwater retention would be required for any future development of the Brownsboro Site. The MSD stated that post-development stormwater flows must meet pre-existing flow rates or the capacity of the downstream system, whichever is more restrictive.

Louisville Gas and Electric (LGE) stated that a primary electrical feed would be provided to the Brownsboro Site from the Taylor Substation, located approximately one mile west of the Site. In addition, LGE stated that a backup electrical feed is possible for the Brownsboro Site.

St. Joseph Site

The **USFWS** indicated that the St. Joseph Site is located within potential Indiana Bat habitat range. To minimize effects to the Indiana Bat, the USFWS stated that VA should, in the future, design the new VAMC to avoid effects to the Indiana Bat; conduct formal ESA Section 7 consultation with the USFWS; and/or enter into a Memorandum of Agreement (MOA) with the USFWS to account for the incidental taking of Indiana Bats. However, the USFWS stated that seasonal tree clearing (October 15 through March 31) could occur without additional mitigation. TTL conducted an Indiana Bat habitat survey of the St. Joseph Site that confirmed that potential Indiana Bat habitat exists at this site, primarily in wooded areas in the northwest and northeastern portions of the site and along the eastern site boundary.

The **USFWS** stated that the St. Joseph Site includes potential habitat for the Running Buffalo Clover. The USFWS stated that proposed alteration of habitat at this site would require a pre-disturbance, on-site survey for the Running Buffalo Clover. TTL conducted a Running Buffalo Clover survey of the St. Joseph Site in May 2012 that did not identify any Running Buffalo Clover at the site. However, Running Buffalo Clover was identified off-site, adjacent to the eastern boundary of the southern portion of the St. Joseph Site.

A response from the **SHPO** dated April 25, 2011 indicated that the St. Joseph Site has the potential to contain prehistoric and/or historic resources that could be impacted by the Proposed Action (during the future construction of a VAMC), and the Proposed Action has the potential to cause indirect effects to historic properties near the site. The SHPO recommended that a records review be completed for the site to assess the potential for archeological resources and structures that are over 50 years of age at and in the vicinity of the St. Joseph Site.

In response to SHPO comments, VA retained RC Goodwin to conduct a records review of the St. Joseph Site. RC Goodwin indicated that no NRHP historic districts of eligible structure were identified within the St. Joseph Site boundaries. RC Goodwin noted that the Altawood Historic District and/or Ash Avenue Historic District, both listed on the NRHP and located approximately 1 to 1.5 miles north of the St. Joseph Site may be within the visual impact area of the Alternate Action Alternative. RC Goodwin indicated that no archeological remains had been documented at the St. Joseph Site, but no surveys had been conducted at the Site; therefore, it was possible intact archeological sites may be present.

RC Goodwin proceeded with a Phase I Archeological Inventory (AI) for the St. Joseph Site, which identified two cultural resources at the Site: one cultural resource locus (which does not qualify as an archeological site) and one archeological site. RC Goodwin concluded that cultural resources do not possess the qualities of significance defined by the National Register Criteria for Evaluation and do not present research potential. As such, RC Goodwin concluded that the St. Joseph Site does not contain cultural resources listed, or eligible for listing, in the NRHP and recommended no further investigations. VA submitted the Draft AI for the St. Joseph Site to the Kentucky SHPO for review and concurrence under Section 106 of the NHPA.

The **PWA** expressed a concern regarding the loss of pervious surfaces at the St. Joseph Site due to any proposed future development; however, the agency did not indicate that this would prevent the future development of a VAMC at the St. Joseph Site. The PWA indicated that the St. Joseph Site includes prime and unique farmland soils.

The PWA also indicated that the transportation infrastructure around the St. Joseph Site is inadequate to handle the traffic volumes for the proposed VAMC. PWA state that improvements to roads and intersections leading into the site could be required as part of any future development of this site. These improvements would likely include improvements to the

I-265 Interchange at Old LaGrange Road, the intersection of Old LaGrange Road and Factory Lane, and construction of a connector road to Old Henry Road.

BTM prepared a Traffic Impact Analysis (TIA) for the St. Joseph Site on behalf of VA (Appendix C). The TIA evaluated peak traffic conditions under three scenarios: current conditions, projected 2018 conditions without the proposed VAMC, and projected 2018 conditions with the proposed VAMC. The results of the TIA indicate that the proposed VAMC could have a significant impact on traffic in the Site area. The TIA also indicated that various intersection improvements, some already planned, would mitigate the traffic impacts associated with the proposed VAMC.

The **USACE** stated that "Waters of the US" may be located on the St. Joseph Site and that a jurisdictional determination is required. TTL completed a Wetlands Delineation of the St. Joseph Site that identified two small wetlands and a perennial stream (Floyd Fork Tributary) in the northern portion of the site that are potential jurisdictional wetlands/Waters of the US. An on-site perennial stream near the southern site boundary and an associated off-site wetland located adjacent to the site are also potential Waters of the US. A small isolated wetland was identified in the central portion of the site that was determined to be non-jurisdictional. If the St. Joseph Site is selected, VA would obtain a jurisdictional determination from the USACE regarding identified wetlands and Waters of the US.

The **KDFWR** indicated that no listed species occur in the vicinity of the St. Joseph Site, but any future effects to streams and wetlands should be addressed, if present.

The **LWC** stated a new water supply tank is being constructed near the southern boundary of the St. Joseph Site and would be ready for service in 2012. In addition, a private fire hydrant loop would likely be required for any future development of the St. Joseph Site.

The **MSD** indicated that stormwater retention would be required for any future development of the St. Joseph Site due to severe local flooding issues (but not on the St. Joseph Site). The MSD stated that post-development stormwater flows must meet pre-existing flow rates or the capacity of the downstream system, whichever is more restrictive.

LGE stated that an electrical service feed for any future proposed development would come from the Old Henry Substation; however, a back-up feed would have to come from a second transformer that has not yet been installed.

4.1.3 Native American Consultation

For proposed actions, Federal agencies are required to consult with federally recognized Native American Tribes in accordance with the NEPA, the National Historic Preservation Act (NHPA), the Native American Graves Protection and Repatriation Act (NAGPRA), and Executive Order (EO) 13175. As part of this NEPA process, VA consulted with seven federally recognized tribes that have potential ancestral ties to Jefferson County, Kentucky, in accordance with applicable regulations. These tribes were identified by the *U.S. Department of Defense 2007 Desk Guide to Military Installations and Federally Recognized Tribes Located in the South and Eastern United States* (VA 2007). VA invited these tribes to participate in the NEPA process as Sovereign Nations per EO 13175. VA sent a coordination and consultation letter to each of these tribes, via certified mail, in July 2011. As of the date of this PEA, no response from any of these seven tribes has been received (VA 2012).

SECTION 5: MANAGEMENT AND MITIGATION MEASURES

Mitigation/Management Measures would be fully developed, if necessary, for the identified resources during the Tiered SEA concurrent with site design efforts which cannot be fully analyzed at present. Anticipated management and mitigation measures for each of the Action Alternatives, based on the analysis in this PEA, are presented below.

Per established protocols, procedures, and requirements, the construction contractor would implement BMPs and would satisfy all applicable regulatory requirements in association with the design, construction, and operation of any of the Action Alternative sites. These "management measures" are described in this PEA, and are included as components of each of the alternatives. "Management measures" are defined as routine BMPs and/or regulatory compliance measures that are regularly implemented as part of proposed activities, as appropriate, across Kentucky. In general, implementation of such management measures, as identified throughout Section 3, would maintain impacts at acceptable levels for all resource areas analyzed. These are different from "mitigation measures," which are defined as project-specific requirements, not routinely implemented as part of development projects, necessary to reduce identified potentially significant adverse environmental impacts to less-than-significant levels.

No mitigation or management measures for either Action Alternative are identified by this PEA's analysis for the following technical resource areas: ***Land Use, Socioeconomics, Community Services, and Environmental Justice.***

5.1 Management Measures

Preferred Action Alternative (Brownsboro Site)

With implementation of routine "management measures," the Preferred Action Alternative would not result in significant adverse impacts to, and would reduce any identified potential adverse effects to, the current environmental setting associated with the following technical resource areas.

Aesthetics. Brownsboro Road, along the northern boundary of the Brownsboro Site, has been designated by the City of Louisville as a Scenic Corridor. VA would develop a landscape plan and would plant and maintain vegetation to meet the requirements of the Parkway and Scenic Corridor Development Standards Ordinance, to the extent practical. Comply with, to the extent practical, the Louisville LDC Ordinance for Generally Applicable Development Standards, as detailed in Section 3.2.

Air Quality. As a result of Jefferson County being located in an 8-Hour Ozone Maintenance Area and a $PM_{2.5}$ Nonattainment Area, a RONA under the Clean Air Act of 1990 is likely to be required. In addition, a Title V operating permit may be required for the proposed boiler equipment, including conducting a full conformity analysis for installing a major pollutant emissions source in a nonattainment area.

Control fugitive dust emissions during construction and obtain required air quality emissions construction and operations permits (if necessary based on the final design) from the KDEP DAQ and the Louisville APCD and PWA as detailed in Section 3.3.

Cultural Resources. Consultation with the SHPO and properly address any unknown cultural resources discoveries during site development, as described in Section 3.4.

Geology and Soils. Control stormwater, soil erosion and sedimentation impacts during construction by preparing and implementing an EPSC Plan and complying with EOs 13514 and 11988, the KPDES permitting process and to the extent practical, LDC ordinances for stormwater management, erosion prevention and sediment control, waterways, and wetlands. Document impacts to prime and unique farmland in accordance with the FPPA. Refer to Section 3.5

Hydrology and Water Quality. Control stormwater, soil erosion and sedimentation impacts during construction by complying with EOs 13514 and 11988, the KPDES permitting process and to the extent practical, LDC ordinances for stormwater management, erosion prevention and sediment control, waterways, and wetlands, as detailed in Section 3.6.

Wildlife and Habitat. Avoid impacts to migratory birds and re-vegetate with native species, detailed in Section 3.7.

Noise. Manage construction activities and schedules to minimize noise impacts. Comply with, to the extent practical, LDC Noise Ordinance and KAR Blasting Statute as detailed in Section 3.8.

Wetland, Floodplains, and Coastal Zone Management. Implement BMPs to control construction and operational-related impacts of soil erosion and sedimentation, and provide a proper onsite stormwater management system. Comply with Federal and State regulations regarding waterways, wetlands, and floodplain management as detailed in Section 3.10.

Solid and Hazardous Materials. Implement construction and operational BMPs to minimize effects and to comply with applicable regulations as detailed in Section 3.13.

Parking. Manage construction and operation activities. Comply with KTC regulations and the Louisville LDC, to the extent practical, as detailed in Section 3.14.

Utilities. Comply with LWC, MSD, and LGE requirements as detailed in Section 3.15.

Alternate Action Alternative (St. Joseph Site)

With implementation of routine "management measures," the Alternate Action Alternative would not result in significant adverse impacts to, and would reduce any identified potential adverse effects to, the current environmental setting associated with the following technical resource areas.

Aesthetics. Comply with, to the extent practical, the Louisville LDC Ordinance for Generally Applicable Development Standards as detailed in Section 3.2.

Air Quality. As a result of Jefferson County being located in an 8-Hour Ozone Maintenance Area and a $PM_{2.5}$ Nonattainment Area, a RONA under the Clean Air Act of 1990 is likely to be required. In addition, a Title V operating permit may be required for the proposed boiler equipment, including conducting a full conformity analysis for installing a major pollutant emissions source in a nonattainment area.

Control fugitive dust emissions during construction and obtain required air quality emissions construction and operations permits (if necessary based on the final design) from the KDEP DAQ and the Louisville APCD and PWA as detailed in Section 3.3.

Cultural Resources. Consultation with the SHPO and properly address any unknown cultural resources discoveries during site development, as described in Section 3.4.

Geology and Soils. Control stormwater, soil erosion and sedimentation impacts during construction by preparing and implementing an EPSC Plan and complying with EOs 13514 and 11988, the KPDES permitting process and to the extent practical, LDC ordinances for stormwater management, erosion prevention and sediment control, waterways, and wetlands. Document impacts to prime and unique farmland in accordance with the FPPA. Refer to Section 3.5

Hydrology and Water Quality. Control stormwater, soil erosion and sedimentation impacts during construction by complying with EOs 13514 and 11988, the KPDES permitting process and to the extent practical, LDC ordinances for stormwater management, erosion prevention and sediment control, waterways, and wetlands, as detailed in Section 3.6.

Wildlife and Habitat. Avoid impacts to migratory birds and re-vegetate with native species. Coordinate with the USFWS with regard to threatened and endangered species and sensitive habitats as detailed in Section 3.7.

Noise. Manage construction activities and schedules to minimize noise impacts. Comply with, to the extent practical, LDC Noise Ordinance and KAR Blasting Statute as detailed in Section 3.8.

Wetland, Floodplains, and Coastal Zone Management. Implement BMPs to control construction and operational-related impacts of soil erosion and sedimentation, and provide a proper onsite stormwater management system. Comply with Federal and State regulations regarding waterways, wetlands, and floodplain management as detailed in Section 3.10.

Solid and Hazardous Materials. Implement construction and operational BMPs to minimize effects and to comply with applicable regulations as detailed in Section 3.13.

Parking. Manage construction and operation activities. Comply with KTC regulations and the Louisville LDC, to the extent practical, as detailed in Section 3.14.

Utilities. Comply with LWC, MSD, and LGE requirements as detailed in Section 3.15.

5.2 Design Avoidance and Mitigation Measures

Preferred Action Alternative

Transportation. The Preferred Action Alternative could result in adverse impacts to Transportation. The TIS indicates that traffic conditions at one or more of the intersections at the Brownsboro Site would be unacceptable (LOS E) in 2018 without the addition of the proposed VAMC. Unless roadway improvements are implemented, the proposed VAMC would result in additional traffic congestion, further degrading the traffic conditions in the area. To mitigate the potentially significant traffic impacts associated with the proposed VAMC, VA would consult and work with pertinent Federal, State (KTC), and local (City of Louisville) regulatory agencies to achieve roadway improvements at the Brownsboro Site. Some of these improvements, such as the SPUI, are already planned by KTC. The SEA would provide a detailed description of the roadway improvement mitigation required to reduce potential

unacceptable traffic impacts within the ROI of the proposed VAMC. Possible mitigation options and considerations for the Preferred Action Alternative are described below.

The primary intersection of concern at the Brownsboro Site is the intersection of Brownsboro Road at Northfield Drive/Old Brownsboro Road. This intersection is expected operate at an LOS E in 2018 without the VAMC and LOS F with the VAMC. The TIS indicates with KTC's planned reconfiguration of the I-264/Brownsboro Road interchange as a SPUI, in combination with other roadway improvements, adverse traffic impacts associated with the Preferred Action Alternative would be reduced to acceptable levels. Improvements included in TIS analysis include:

- The planned reconfiguration of the I-264/Brownsboro Road (US-42) interchange as a SPUI.
- The widening of Northfield Drive/Old Brownsboro Road to accommodate an additional southbound thru lane and a dedicated two-way-left turn land between US-42 and KY-22. This is part of the 2012 slip ramp project.
- Widen US-42 to a six-lane divided road from the I-264 interchange to approximately 600 feet of Northfield Drive.
- Add a third northbound lane, providing a triple left turn, at the intersection of US-42 and Northfield Drive/Old Brownsboro Road.
- Modify the intersection of Old Brownsboro Road and the I-264 slip ramp to signalize westbound right turn movements and add dual westbound right turn lanes on Old Brownsboro Road. Modify the northbound right-turn lane to a thru/right lane to provide two through lanes in the northbound direction.

Additional options to improve traffic conditions at the Brownsboro Site include:

- Additional reconfigurations of the I-264/Brownsboro Road intersection.
- Staggering employee shifts at the VAMC to reduce traffic during peak hours (AM and PM).

These options and other possible roadway improvements would be evaluated by VA through consultation with KTC and the City of Louisville during the project design phase, assessed through additional traffic impact analyses, and detailed and more fully developed in the SEA. If the Brownsboro Site is selected, KTC would consider the traffic associated with the proposed VAMC in its planned interchange reconfiguration design in 2013.

Alternate Action Alternative

Wetlands and Waters of the US. The Alternate Action Alternative could result in adverse impacts to wetlands and Waters of the US, and protected wildlife and habitat. If the Alternate Action Alternative is selected, VA would implement the following mitigation (if necessary) and avoidance measures to reduce potential adverse effects to wetlands and Waters of the US to acceptable, less-than-significant levels. These measures would be more fully developed as part of the subsequent, site-specific Tiered SEA, concurrent with the design efforts. VA anticipates that through environmentally sensitive site design and following good engineering practices, wetlands/Waters of the US would be avoided.

VA would avoid onsite wetlands and surface water resources to the extent possible during the site design process. VA would consult with, and obtain the necessary permit(s) from the

USACE and KDEP under Sections 401 and 404 of the Clean Water Act, to minimize adverse effects to jurisdictional wetlands and surface water resources prior to construction. VA anticipates that final VAMC design would maintain a buffer of undisturbed land around the majority of the identified wetlands and surface water resources. However, in those cases where impacts to wetlands and Water of the US cannot be avoided, VA would obtain and comply with all necessary permits from Federal, State, and local agencies.

To minimize potential adverse impacts from the implementation of the Alternate Action Alternative, VA would:

- Obtain a jurisdictional determination from the USACE regarding identified wetlands and Waters of the US.
- Develop a site design that avoids interaction with onsite and adjacent wetlands and surface waters.
- Obtain and execute any requirements of necessary permits from the appropriate Federal and State agencies under Sections 401 and 404 of the Clean Water Act.
- Develop a site plan that provides a buffer around jurisdictional wetlands and surface waters in accordance with the City of Louisville and Jefferson County Waterways and Wetlands Protection Ordinance (Land Development Code, Chapter 4, Part 8).

Wildlife and Habitat. The Alternate Action Alternative could result in adverse impacts to protected wildlife and habitat. If the Alternate Action Alternative site is selected, VA would implement the following mitigation (if necessary), avoidance, and management measures to reduce potential adverse effects protected wildlife and habitat to acceptable, less-than-significant levels. These measures would be fully developed as part of the subsequent, site-specific SEA, concurrent with the site design efforts. VA would:

- Submit the habitat survey and Running Buffalo Clover survey to the USFWS for their review and comment.
- Maintain a buffer of undisturbed land around identified protected wildlife resources, if possible.
- If impacts to protected wildlife resources cannot be avoided, VA would consult and comply with Federal and State agencies. If impacts to the Indiana Bat and Running Buffalo Clover are unavoidable, VA would enter into a MOA with the USFWS to account for the incidental taking of Indiana Bats and Running Buffalo Clover. In addition, VA would conduct seasonal tree clearing (October 15 through March 31) in coordination with the USFWS to minimize impacts to Indiana Bats.

Transportation. The Alternate Action Alternative could result in adverse impacts to transportation due to the anticipated traffic congestion at the intersections of Old Henry Road with Bush Farm Road and Factory Lane, and LaGrange Road and Factory Lane/Chamberlain Lane. Additional traffic associated with the proposed VAMC would have a significant adverse effect on these intersections. However, the VA anticipates that through roadway improvements in consultation with pertinent Federal, State, and local regulatory agencies, these potential impacts would be mitigated to less-than-significant levels. This issue would be specifically analyzed, addressed, and mitigated within a subsequent, site-specific, tiered EA.

Three intersections are projected to have an unacceptable level of service in the vicinity of the St. Joseph Site. One of these intersections (Bush Farm Road/Old Henry Road) will be redone in association with KTC's Old Henry Road Improvement Project by 2015, prior to the completion of the VAMC. The configuration of this new intersection is unknown; however, it is anticipated that it would be designed to mitigate traffic delays at this intersection. The TIA

modeled this intersection with the addition of a northbound left turn lane, a westbound through lane, and an additional lane for both approaches. This configuration resulted in a LOS of C for 2018 with the VAMC.

The intersection of La Grange Road at Factory Lane/Chamberlain Lane is modeled to operate at a LOS of F if the VAMC were constructed at the St. Joseph Site, with the primary movement of concern being the left turn from Factory Lane to La Grange Road. Factory Lane currently has a left turn lane, a through/left turn lane, and a right turn lane at this intersection. The TIA indicated that by restriping this approach to provide two left turn lanes and a through/right turn lane, the overall LOS for the intersection would be improved to LOS D.

The third intersection projected to have an unacceptable level of service in the vicinity of the St. Joseph Site is the I-265 exit ramps at Old Henry Road. The westbound lanes on Old Henry Road (AM peak), the left turn lane from the I-265 exit ramp to Old Henry Road (AM peak), and the right turn lane from the I-265 exit ramp to Old Henry Road (PM peak) are modeled to operate at an LOS of F with the proposed VAMC. Reconfiguration of this intersection could alleviate these traffic delays.

These options and other possible roadway improvements (such as the creation of dual ingress/egress points to the VAMC from Factory Lane and a connector from Old Henry Road) would be evaluated by VA through consultation with KTC and the City of Louisville, would be assessed through additional traffic impact analyses, and would be detailed in the SEA.

SECTION 6: CONCLUSIONS

This PEA evaluates the potential environmental effects of VA's Proposed Action to select and acquire a site for the construction and operation of a minimum 800,000-gross square foot replacement VAMC within an approximate 15-mile radius of the existing University of Louisville Healthcare Center, in Louisville, Jefferson County, Kentucky. Once a site (i.e., alternative) is selected, VA would prepare a subsequent, tiered, SEA to more precisely analyze and evaluate the potential effects of the construction and operation of the proposed VAMC. At this latter point, additional design information would be available upon which to conduct this future effects analysis. This PEA includes a brief analysis of the effects of the transfer of operations from the existing VAMC to the proposed replacement VAMC. VA plans for the existing VAMC have not been determined and would be the subject of a future feasibility study and analysis.

This PEA discussed three alternatives: (1) *Preferred Action Alternative* – select and acquire the approximately 36-acre Brownsboro Site, located southeast of the intersection of the Watterson Expressway (I-264) and Brownsboro Road in Louisville, Kentucky, for the future construction and operation of the proposed VAMC; (2) *Alternate Action Alternative* – select and acquire the approximately 99-acre St. Joseph Site, located east of the Gene Snyder Freeway (I-265) and south of Factory Lane in Louisville, Kentucky, for the future construction and operation of the proposed VAMC; and (3) the *No Action Alternative*.

This PEA evaluated possible effects to aesthetics; air quality; cultural resources; geology and soils; hydrology and water quality; wildlife and habitat, including threatened and endangered species; noise; land use; floodplains, wetlands, and coastal zone management; socioeconomics; community services; solid and hazardous materials; transportation and parking; utilities; and Environmental Justice (Executive Order [EO] 12898).

This PEA concludes there would be no significant adverse impact, either individually or cumulatively, to the local environment or quality of life associated with implementing either Action Alternative, provided that the mitigation and management measures, and best management practices identified in this PEA are implemented.

Site-specific impacts would be further evaluated in a subsequent, tiered EA (Site-Specific EA) once a site has been selected, acquired, and the proposed VAMC design process has been initiated. The mitigation, avoidance, and management measures identified in this PEA would be incorporated into that future process and analysis.

Therefore, this PEA concludes that a mitigated Finding of No Significant Impact (FONSI) is appropriate, and that an Environmental Impact Statement (EIS) is not required.

SECTION 7: LIST OF PREPARERS

DEPARTMENT OF VETERANS AFFAIRS STAFF

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TTL ASSOCIATES, INC. (CONSULTANTS)

Name	Role	Degree	Years of Experience
Paul Jackson	Site Visits, Research, Document Preparation, and Scoping Coordination	B.A., Biology/English 1992	13
Rob Clark	Project Manager, Technical QA/QC Review, Program Management/Project Coordination	B.S., Aquatic Environments/Environmental Science, 1985	25
Brian Boose	Senior NEPA Guidance	B.S., Biological Sciences/Ecology 1990	22
Clark Wittenberg	GIS Analysis; Mapping; Graphics	A.S., Civil Engineering Technology 1995 A.S., Architectural Technology 1995 B.S., Construction Management 2001	17

SECTION 8: REFERENCES CITED

American Community Survey 2010.

Coastal Zone Management Act of 1990, as amended (16 USC 1451 *et seq*.)

Clean Air Act of 1970 (42 USC 7401 *et. seq.*; 40 CFR Parts 50-87) Section 176(c).

Endangered Species Act of 1973, as amended (7 USC 136; 16 USC 1531 et seq.).

EO 11988, *Floodplain Management*. 1977.

EO 11990, *Protection of Wetlands*. 1977.

EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.* 1994.

EO 13045, *Protection of Children From Environmental Health Risks and Safety Risks*. 1997.

EO 13175, *Consultation and Coordination with Indian Tribal Governments.* 6 November 2000.

EO 13423, *Strengthening Federal Environmental, Energy, and Transportation Management.* 24 January 2007.

EO 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*. 5 October 2009.

Farmland Protection Policy Act (FFPA) (7 USC 4201, *et seq.*).

Federal Clean Air Act of 1990 (42 USC 7401 et seq., as amended).

Federal Clean Water Act (Federal Water Pollution Control Act) of 1948, as amended (1972, 1977) (33 USC 1251 et seq.); Sections 401 and 404.

Federal Emergency Management Agency (FEMA), Flood Insurance Rate Map No. 12057C0210H, dated 28 August 2008.

Jefferson County – Louisville Metro Air Pollution Control District (MAPCD), 2011.

Jefferson County – Louisville Economic Development Department (EDD), 2011.

Jefferson County – Louisville Inspections, Permits, and Licensing (IPL) Department, 2011.

Jefferson County Soil and Water Conservation District (SWCD), 2011.

Jefferson County – Louisville Planning and Design Services (PDS), 2011.

Jefferson County – Louisville Metro Public Works and Assets (MPWA), 2011.

Jefferson County – Louisville Metro Parks Department (MPD), 2011.

Kentucky Department of Natural Resources (KDNR) 2011.

Kentucky Department of Environmental Protection (KDEP) 2011.

Kentucky Department of Fish and Wildlife Resources (KDFWR) 2011.

Kentucky Transportation Cabinet (KDOT), 2011.

Kentucky Heritage Council (SHPO), 2011.

Migratory Bird Treaty Act (16 USC 703-712, 3 July 1918; as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986, and 1989).

National Historic Preservation Act of 1966, as amended (36 CFR Part 800).

National Oceanic and Atmospheric Association 2010.

Natural Resources Conservation Service, Mount Washington Service Center, 2011

US Army Corps of Engineers, Louisville District 2010.

US Fish and Wildlife Service (USFWS), Southeast Region 2010.

US Environmental Protection Agency (USEPA), Region 4 2010.

US Department of Commerce Bureau of Economic Analysis 2010.

US Census Bureau 1990, 1999, 2000, 2008, 2009, and 2010.

US Department of Agriculture, Natural Resources Conservation Service Web Soil Survey 2010.

US Department of Labor 2010.

US Environmental Protection Agency (USEPA) National Ambient Air Quality Standards (NAAQS) 2008.

US Geological Survey 2010.

USEPA Groundwater Atlas of the United States 2010.

USEPA's Total Maximum Daily Loads (TMDL) Report (USEPA 2006, *Total Maximum Daily Loads, Section 303[d] List*).

USFWS National Wetlands Inventory Online Mapper 2010.

VA 2010. NEPA Interim Guidance for Projects. PG-18-17 (rev.). 30 September 2010.

Websites Consulted:

FEMA Flood Hazard Insurance Map, website: http://msc.fema.gov/webapp/wcs/stores/servlet

Superfund Site Information Systems, US Environmental Protection Agency, website: http://cfpub.epa.gov/supercpad/cursities.htm

US Department of Veterans Affairs, website: http://www.louisville.va.gov/

USEPA Environmental & Compliance History Online (ECHO) e-database: http://www.epa-echo.gov/echo/

US Bureau of Census (2000 US Census Data): http://www.census.gov/

USDA NRCS online web soil survey: http://websoilsurvey.nrcs.usda.gov/app/WebSoil Survey.aspx.

Various mapping tools to locate properties, internet, www.mapquest.com, www.maps.google.com , www.google.earth.com , etc.

SECTION 9: LIST OF ACRONYMS AND ABBREVIATIONS

AAQ	Area of Air Quality
ACA	Air Compliance Assurance
ACHP	Advisory Council on Historic Preservation
ACO	Access Control Office
ADA	Americans with Disabilities Act of 1990
AIRFA	American Indian Religious Freedom Act
amsl	above mean sea level
APCD	Jefferson County – Louisville Metro Air Pollution Control District
ARPA	Archaeological Resources Protection Act
BEA	Bureau of Economic Analysis
BMP	Best Management Practice
CAA	Clean Air Act
CAA	Clean Air Act Amendments
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEQ	Council on Environmental Quality
CES	control erosion and sedimentation
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CONUS	Continental United States
CWA	Clean Water Act
CZARA	Coastal Zone Act Reauthorization Amendments
CZMA	Coastal Zone Management Act
DAQ	Division of Air Quality
DOW	Division of Water
EA	Environmental Assessment
EDD	Jefferson County – Louisville Economic Development Department
EDR	Environmental Data Resources
EIS	Environmental Impact Statement
EO	Executive Order
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
FUDS	Formerly Utilized Defense Site
HAP	Hazardous Air Pollutant
IICEP	Interagency and Intergovernmental Coordination for Environmental Planning
IPL	Jefferson County – Louisville Inspections, Permits, and Licensing Department
KDEP	Kentucky Department of Environmental Protection
KDNR	Kentucky Department of Natural Resources
KDFWR	Kentucky Fish and Wildlife Resources
KHC	Kentucky Heritage Council (see SHPO
KTC	Kentucky Transportation Cabinet
LDC	Land Development Code
LOS	Level of Service
MPD	Jefferson County – Louisville Metro Parks Department
NAAQS	National Ambient Air Quality Standards
NAC	Native American Consultation
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act of 1969
NHPA	National Historic Preservation Act
NOA	Notice of Availability
NOAA	National Oceanic and Atmospheric Association
NO_X	Nitrogen Oxides
NPDES	National Pollution Discharge Elimination System
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
O_3	Ozone

OSHA	Occupational Safety and Health Administration
Pb	Lead
PBF	Public Buildings and Facilities
PC	Jefferson County – Louisville Planning Commission
PDD	Jefferson County – Louisville Planning and Design Department
PM	Particulate matter
PM_{10}	Particulate matter less than or equal to 10 micrometers in aerodynamic size
$PM_{2.5}$	Particulate matter less than or equal to 2.5 micrometers in aerodynamic size
PTE	Potential to emit
PWA	Jefferson County – Louisville Metro Public Works and Assets
RCRA	Resource Conservation and Recovery Act
ROI	Region of Influence
RONA	Record of No Action
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SO_2	Sulfur dioxide
SWCD	Soil and Water Conservation District
TPY	Tons per year
USACE	United States Army Corps of Engineers
USC	United States Code
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VA	Department of Veterans Affairs

SECTION 10: AGENCIES AND INDIVIDUALS CONSULTED

Agencies Consulted

US Fish and Wildlife Service – Southeast Region
P.O. Box 3724
Louisville, Kentucky 40201-3724
Phone: (502) 582-5989

US Environmental Protection Agency, Region 4
Office of Public Affairs
Sam Nunn Atlanta Federal Center
61 Forsyth Street SW
Atlanta, Georgia 30303-8960
Phone: (404) 562-9900

US Army Corps of Engineers – Louisville District
Public Affairs Office
P.O. Box 59
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Kentucky Department of Environmental Protection
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Kentucky Department of Fish and Wildlife Resources
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Kentucky Transportation Cabinet
Office of Project Development
200 Metro Street
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Kentucky Heritage Council
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Jefferson County – Louisville Metro Air Pollution Control District
850 Barret Avenue
Louisville, Kentucky 40204-1745
Phone: (502) 574-6000

Jefferson County – Louisville Economic Development Department
Metro Development Center
444 South 5th Street, Suite 600
Louisville, Kentucky 40202
Phone: (502) 574-4140

Jefferson County – Louisville Inspections, Permits, and Licensing (IPL) Department
444 South Fifth Street
Louisville, Kentucky 40202
Phone: (502) 574-3321

Jefferson County Soil and Water Conservation District
Chrysler Building, Suite 100-A
4233 Bardstown Road
Louisville, Kentucky 40218-3280
Phone: (502) 499-1900

Jefferson County – Louisville Planning and Design Services
444 South Fifth Street, Suite 300
Louisville, Kentucky 40202
Phone: (502) 574-6230

Jefferson County – Louisville Metro Public Works and Assets
444 South Fifth Street
Suite 400
Louisville, Kentucky 40202
Phone: (502) 574-5810

Natural Resources Conservation Service
Mount Washington Service Center
1200 North Bardstown Road
Mount Washington, Kentucky 40047-7669
Phone: (502) 538-2221

Jefferson County – Louisville Metro Parks Department
P.O. Box 37280
Louisville, Kentucky 40233-7280
Phone: (502) 456-8100

SECTION 11: LIST OF ENVIRONMENTAL PERMITS REQUIRED

11.1 Regulatory Framework

This EA has been prepared under the provisions of, and in accordance with the NEPA, the CEQ Regulations Implementing the Procedural Provisions of NEPA, and 38 CFR Part 26. In addition, the EA has been prepared as prescribed in VA's *NEPA Interim Guidance for Projects* (VA 2010). Federal, State, and local laws and regulations specifically applicable to this Proposed Action are specified, where appropriate, within this EA, and include:

- Migratory Bird Treaty Act (MBTA; 16 USC 703-712, 3 July 1918; as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986, and 1989).
- Endangered Species Act (ESA) of 1973, as amended (7 USC 136; 16 USC 1531 et seq.).
- Native American Graves Protection and Repatriation Act, as amended (NAGPRA) (25 USC 3001 et seq.).
- National Historic Preservation Act (NHPA) of 1966, as amended (36 CFR Part 800).
- Federal Clean Air Act (CAA) of 1990 (42 USC 7401 *et seq*., as amended).
- Federal Clean Water Act (Federal Water Pollution Control Act) of 1948, as amended (1972, 1977) (33 USC 1251 *et seq*.); Sections 401 and 404.
- Executive Order 11988, *Floodplain Management* (24 May 1977).
- Executive Order 11990, *Protection of Wetlands* (24 May 1977).
- Executive Order 12898, *Environmental Justice* (11 May 1994).
- Executive Order 13423, *Strengthening Federal Environmental, Energy, and Transportation Management* (24 January 2007).
- Executive Order 13514, *Federal Leadership in Environmental, Energy, and Economic Performance* (5 October 2009).
- Kentucky Administrative Regulations (KAR) Revised Statues.
- Louisville Land Development Code (March 2003).

SECTION 12: GLOSSARY

100-Year Flood – A flood event of such magnitude that it occurs, on average, every 100 years; this equates to a one percent chance of its occurring in a given year.

Aesthetics – Pertaining to the quality of human perception of natural beauty.

Ambient - The environment as it exists around people, plants, and structures.

Ambient Air Quality Standards - Those standards established according to the CAA to protect health and welfare (AR 200-1).

Aquifer - An underground geological formation containing usable amounts of groundwater which can supply wells and springs.

Asbestos - Incombustible, chemical-resistant, fibrous mineral forms of impure magnesium silicate used for fireproofing, electrical insulation, building materials, brake linings, and chemical filters. Asbestos is a carcinogenic substance.

Attainment Area - Region that meets the National Ambient Air Quality Standard (NAAQS) for a criteria pollutant under the CAA.

Bedrock - The solid rock that underlies all soil, sand, clay, gravel and loose material on the earth's surface.

Best Management Practices (BMPs) - Methods, measures, or practices to prevent or reduce the contributions of pollutants to US waters. Best management practices may be imposed in addition to, or in the absence of, effluent limitations, standards, or prohibitions (AR 200-1).

Commercial land use – Land use that includes private and public businesses (retail, wholesale, etc.), institutions (schools, churches, etc.), health services (hospitals, clinics, etc.), and military buildings and installations.

Compaction - The packing of soil together into a firmer, denser mass, generally caused by the pressure of great weight.

Contaminants - Any physical, chemical, biological, or radiological substances that have an adverse effect on air, water, or soil.

Council on Environmental Quality (CEQ) - An Executive Office of the President composed of three members appointed by the President, subject to approval by the Senate. Each member shall be exceptionally qualified to analyze and interpret environmental trends, and to appraise programs and activities of the Federal Government. Members are to be conscious of and responsive to the scientific, economic, social, aesthetic, and cultural needs of the Nation; and to formulate and recommend national policies to promote the improvement of the quality of the environment.

Criteria Pollutants - The CAA of 1970 required the USEPA to set air quality standards for common and widespread pollutants in order to protect human health and welfare. There are six "criteria pollutants": ozone (O_3), carbon monoxide (CO), sulfur dioxide (SO_2), lead (Pb), nitrogen dioxide (NO_2), and particulate matter.

Cultural Resources - The physical evidence of our Nation's heritage. Included are: archaeological sites; historic buildings, structures, and districts; and localities with social significance to the human community.

Cumulative Impact - The impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonable foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7).

Decibel (dB) - A unit of measurement of sound pressure level.

Direct Impact - A direct impact is caused by a Proposed Action and occurs at the same time and place.

Emission - A release of a pollutant.

Endangered Species - Any species which is in danger of extinction throughout all or a significant portion of its range.

Environmental Assessment (EA) - An EA is a publication that provides sufficient evidence and analyses to show whether a proposed system would adversely affect the environment or be environmentally controversial.

Erosion - The wearing away of the land surface by detachment and movement of soil and rock fragments through the action of moving water and other geological agents.

Farmland - Cropland, pastures, meadows, and planted woodland.

Fauna - Animal life, especially the animal characteristics of a region, period, or special environment.

Flora - Vegetation; plant life characteristic of a region, period, or special environment.

Floodplain - The relatively flat area or lowlands adjoining a river, stream, ocean, lake, or other body of water that is susceptible to being inundated by floodwaters.

FONSI - Finding of No Significant Impact, a NEPA document.

Fugitive Dust - Particles light enough to be suspended in air, but not captured by a filtering system. For this document, this refers to particles put in the air by moving vehicles and air movement over disturbed soils at construction sites.

Geology - Science which deals with the physical history of the earth, the rocks of which it is composed, and physical changes in the earth.

Groundwater - Water found below the ground surface. Groundwater may be geologic in origin and as pristine as it was when it was entrapped by the surrounding rock or it may be subject to daily or seasonal effects depending on the local hydrologic cycle. Groundwater may be pumped from wells and used for drinking water, irrigation, and other purposes. It is recharged by precipitation or irrigation water soaking into the ground. Thus, any contaminant in precipitation or irrigation water may be carried into groundwater.

Hazardous Substance - Hazardous materials are defined within several laws and regulations to have certain meanings. For this document, a hazardous material is any one of the following:

Any substance designated pursuant to section 311 (b)(2)(A) of the Clean Water Act.

Any element, compound, mixture, solution, or substance designated pursuant to Section 102 of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

Any hazardous substance as defined under the Resource Conservation and Recovery Act (RCRA).

Any toxic pollutant listed under TSCA.

Any hazardous air pollutant listed under Section 112 of CAA.

Any imminently hazardous chemical substance or mixture with respect to which the EPA Administrator has taken action pursuant to Subsection 7 of TSCA.

The term does not include: 1) Petroleum, including crude oil or any thereof, which is not otherwise specifically listed or designated as a hazardous substance in a above. 2) Natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas). A list of hazardous substances is found in 40 CFR 302.4.

Hazardous Waste - A solid waste which, when improperly treated, stored, transported, or disposed of, poses a substantial hazard to human health or the environment. Hazardous wastes are identified in 40 CFR 261.3 or applicable foreign law, rule, or regulation.

Hazardous Waste Storage - As defined in 40 CFR 260.10, ". . . the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed

of, or stored elsewhere".

Hydric Soil - A soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic (oxygen-lacking) conditions that favor the growth and regeneration of hydrophytic vegetation. A wetland indicator.

Indirect Impact - An indirect impact is caused by a Proposed Action that occurs later in time or farther removed in distance, but is still reasonably foreseeable. Indirect impacts may include induced changes in the pattern of land use, population density or growth rate, and related effects on air, water, and other natural and social systems. For example, referring to the possible direct impacts described above, the clearing of trees for new development may have an indirect impact on area wildlife by decreasing available habitat.

Industrial Land Use – Land uses of a relatively higher intensity that are generally not compatible with residential development. Examples include light and heavy manufacturing, mining, and chemical refining.

Isolated Wetland – Areas that meet the wetland hydrology, vegetation, and hydric soil characteristics, but do not have a direct connection to the Waters of the US.

Jurisdictional Wetland – Areas that meet the wetland hydrology, vegetation, and hydric soil characteristics, and have a direct connection to the Waters of the US. These wetlands are regulated by the USACE.

Listed Species - Any plant or animal designated as a State or Federal threatened, endangered, special concern, or candidate species.

Mitigation - Measures taken to reduce adverse impacts on the environment.

Mobile Sources - Vehicles, aircraft, watercraft, construction equipment, and other equipment that use internal combustion engines for energy sources.

Monitoring - A process of inspecting and recording the progress of mitigation measures implemented.

National Ambient Air Quality Standards (NAAQS) - Nationwide standards set up by the USEPA for widespread air pollutants, as required by Section 109 of the Clean Air Act (CAA). Currently, six pollutants are regulated by primary and secondary NAAQS: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), ozone (O_3), particulate matter, and sulfur dioxide (SO_2).

National Environmental Policy Act (NEPA) - U.S. statute that requires all Federal agencies to consider the potential effects of Proposed Actions on the human and natural environment.

Non-attainment Area - An area that has been designated by the EPA or the appropriate State air quality agency as exceeding one or more National or State ambient air quality standards.

Parcel - A plot of land, usually a division of a larger area.

Particulates or Particulate Matter - Fine liquid or solid particles such as dust, smoke, mist, fumes, or smog found in air.

Physiographic Region - A portion of the Earth's surface with a basically common topography and common morphology.

Pollutant - A substance introduced into the environment that adversely affects the usefulness of a resource.

Potable Water - Water which is suitable for drinking.

Prime Farmland - A special category of highly productive cropland that is recognized and described by the US Department of Agriculture's Soil Conservation Service and receives special protection under the Surface Mining Law.

Remediation - A long-term action that reduces or eliminates a threat to the environment.

Riparian Areas - Areas adjacent to rivers and streams that have a high density, diversity, and productivity of plant and animal species relative to nearby uplands.

River Basin - The land area drained by a river and its tributaries.

Sensitive Receptors - Include, but are not limited to, asthmatics, children, and the elderly,

as well as specific facilities, such as long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, and childcare centers.

Significant Impact - According to 40 CFR 1508.27, "significance" as used in NEPA requires consideration of both context and intensity.

Context. The significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the Proposed Action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short- and long-term effects are relevant.

Intensity. This refers to the severity of impact. Responsible officials must bear in mind that more than one agency may make decisions about partial aspects of a major action.

Small quantity generator - A generator who generates greater than 220 pounds but less than 2,200 pounds of hazardous waste in a calendar month and who does not accumulate more than 13,200 pounds of hazardous waste at any one time (if either threshold is exceeded, the generator becomes a large quantity generator). A small quantity generator may accumulate hazardous waste up to 180 days from the accumulation start date.

Soil - The mixture of altered mineral and organic material at the earth's surface that supports plant life.

Solid Waste - Any discarded material that is not excluded by section 261.4(a) or that is not excluded by variance granted under sections 260.30 and 260.31.

Threatened species - Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Topography - The relief features or surface configuration of an area.

Toxic Substance - A harmful substance which includes elements, compounds, mixtures, and materials of complex composition.

Waters of the United States - Include the following: (1) All waters which are currently being used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide. (2) All interstate waters including interstate wetlands. (3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds; the use, degradation or destruction of which could affect interstate or foreign commerce.

Watershed - The region draining into a particular stream, river, or entire river system.

Wetlands - Areas that are regularly saturated by surface or groundwater and, thus, are characterized by a prevalence of vegetation that is adapted for life in saturated soil conditions. Examples include swamps, bogs, fens, marshes, and estuaries.

Wildlife Habitat - Set of living communities in which a wildlife population lives.

APPENDIX A

Consultation Documents

APPENDIX B

Photographic Log

APPENDIX C

Other Relevant Environmental Data

APPENDIX D

Public Notices and Comments